



**Economics Research Associates**

Final Draft Report  
Real Estate Market Analysis  
Otay Mesa Community Plan Area,  
Otay Mesa, CA

Submitted to  
City of San Diego

Submitted by  
Economics Research Associates

September 21, 2005

ERA Project No. 15640



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This study is based on estimates, general knowledge of the industry and consultations with the client and the client's representatives. No responsibility is assumed for inaccuracies in reporting by the client, the client's agent and representatives or any other data source used in preparing or presenting this study. Most data research was conducted from July 2004 through September 2004, for the original October, 2004 draft submittal, with only review of industrial land supply data since such date, and Economics Research Associates has not undertaken any other update of its research effort. No warranty or representation is made by Economics Research Associates that any of the projected values or results contained in this study will actually be achieved. This report is not to be used in conjunction with any public or private offering of securities or other similar purpose where it may be relied upon to any degree by any person other than the client without first obtaining the prior written consent of Economics Research Associates. This study may not be used for purposes other than that for which it is prepared. This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions, and considerations.

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## I. Introduction

Economics Research Associates (ERA) conducted an analysis of economic and real estate market conditions, and prepared long-term demand forecasts as an input to the development of a long-range land use plan for the Otay Mesa Community Plan Area. This analysis presents demand forecast ranges for industrial, office, retail, and residential land uses to the year 2030.

Exhibit I-1 illustrates the extent of the study area which is bordered to the west by the San Ysidro and Otay Mesa-Nestor Community Planning Areas of the City of San Diego, San Diego County land to the east, City of Chula Vista to the north, and the US-Mexico International border to the south.

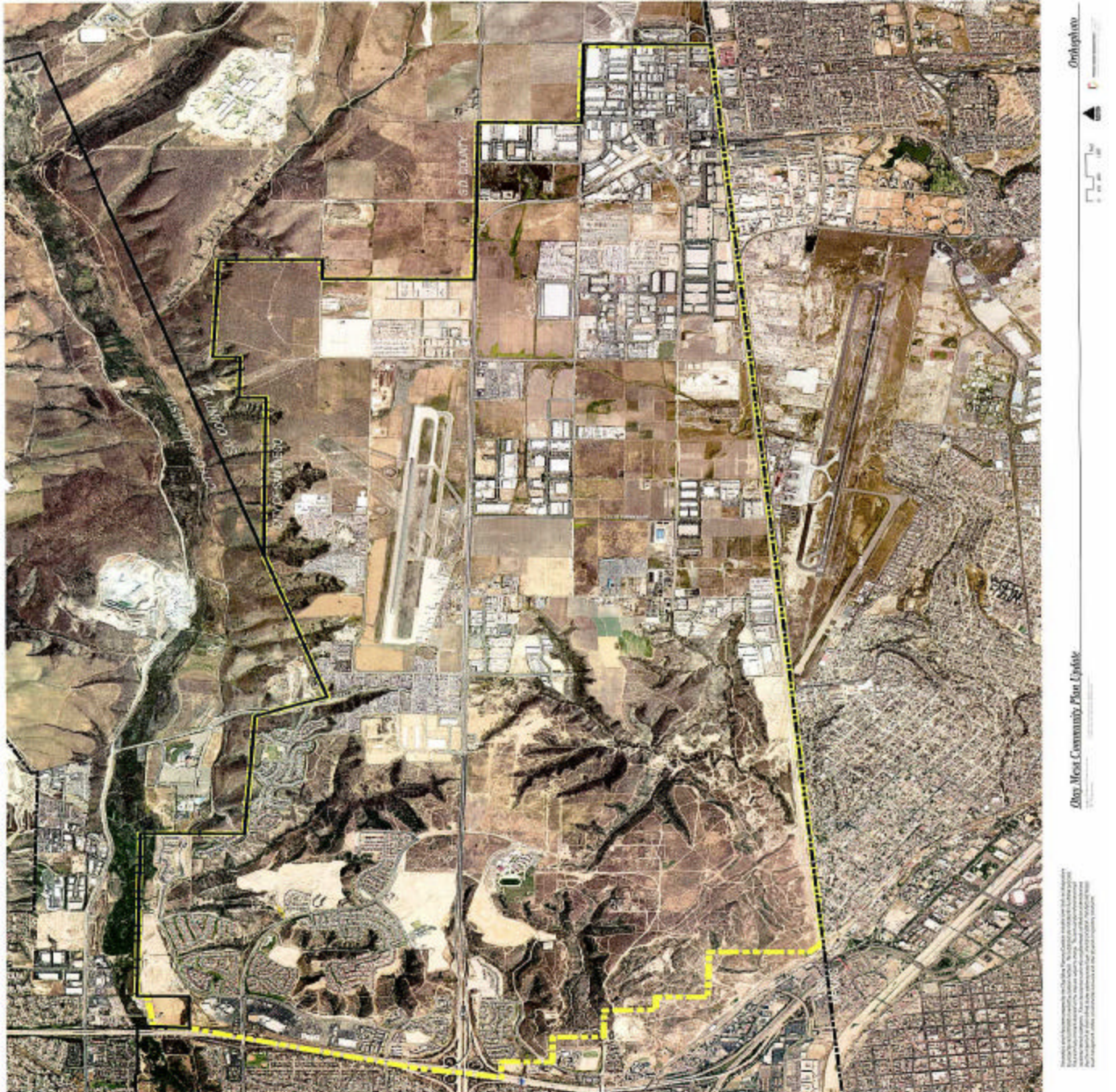
ERA's analysis was comprised of several distinct but interrelated components:

- An analysis of the demographic context and trends in the region that will drive residential demand;
- An analysis of economic conditions and industry trends that will drive demand for industrial and office uses;
- An assessment of the magnitude and characteristics of border trade with Mexico and the role of the Tijuana and Maquiladora economy in shaping demand for employment and residential uses in Otay Mesa;
- A review of infrastructure development and planned improvements in South County that will affect growth potential in Otay Mesa;
- An overview of real estate market conditions in San Diego county and the relevant sub-markets including an analysis of trends of key market supply and demand variables such as inventory, vacancy, absorption, rents, land and building values and product positioning;
- Estimated ranges of demand for residential units, industrial and office space, and retail space, and the conversion of such potentials to land absorption forecasts for Otay Mesa to the year 2030.

The following summarizes our findings.

Exhibit I-1

OTAY MESA COMMUNITY PLAN AREA





### ***Demographic Context***

The San Diego Association of Governments (SANDAG) forecasts substantial population, household and employment growth in San Diego County through the year 2030. This growth will be comprised of:

- 900,000 new residents reaching 3.9 million in 2030;
- 250,000 new households reaching 1.3 million in 2030.

The South Suburban Major Statistical Area (MSA), of which Otay Mesa Community Plan Area (CPA) constitutes a part, is forecast to capture a substantial proportion of this growth. SANDAG forecasts that the South Suburban MSA will increase its population base by more than 141,000, a 40 percent increase over the existing estimate of 351,400 residents. The South Suburban MSA is also forecast to add more than 31,500 new households to the year 2030, capturing 12.5 percent of total County growth.

The Otay Mesa CPA is forecast to increase its population base by approximately 42,500, from 6,800 to 49,300 residents, representing 30 percent of projected South Suburban MSA growth. The number of households is forecast to grow from 2,600 to 12,400 households by 2030, an increase of 9,800. SANDAG forecasts that approximately 99 percent of the growth in Otay Mesa will occur between now and 2020 with only trace levels of new development thereafter. This is due to the current expectation that the Otay Mesa CPA will be built-out by 2020 under the existing adopted community plan. However, this represents just one potential forecast scenario for Otay Mesa and in developing forecasts for residential development potentials, ERA also analyzed the impact of increasing the available residential land after the year 2020 if the land use plan were to be amended.

The demographic composition is changing in the region. Trends and forecasts suggest an aging population both regionally and in Otay Mesa. The Hispanic population is forecast to increase its share of the South Suburban population from around 53 percent in 2000 to 68 percent by 2030. Forecasts suggest that by 2030 approximately 76 percent of Otay Mesa residents will be of Hispanic origin.

Renter-occupied units appear to be under-represented in Otay Mesa at present. Estimates indicate that this tenure comprised just six percent of the housing stock in 2000 compared to 45 percent in both the County and the South Suburban MSA. SANDAG forecasts that multi-family development will increase its share of the housing stock in Otay Mesa to approximately 59 percent by 2030.

## ***Economic Trends***

The San Diego economic base has grown and diversified substantially since 1990. Annual gross regional product has increased by over 50 percentage points, in real terms, to approximately \$137 billion.

Even though San Diego County's economy is more diversified than a decade ago, manufacturing, the military, and tourism are still major contributors. Some of the industries that emerged in the region as major contributors to the economic base include biotechnology, electronics, software, telecommunications, and computer applications. The region's economy has also benefited from NAFTA related trade given its strategic geographic location. Since its inception in 1994, the total dollar volume of international trade has more than tripled in the region.

Housing affordability remains one of the region's major problems, with diminishing supply of developable land and double-digit price appreciation in some areas, exacerbating the supply and demand imbalance.

SANDAG forecasts that the San Diego region may add 440,000 jobs between 2000 and 2030, increasing its workforce from 1.38 million to 1.82 million, for a compounded annual growth rate (CAGR) of 0.9 percent. The financial, insurance and real estate (FIRE), including banking institutions, insurance companies and real estate companies, and service sectors in the San Diego region are projected to grow by 50 percent during the 30-year period. Such growth will generate demand for office space during the forecast horizon. Wholesale trade is expected to grow by 46 percent, generating demand for warehousing/distribution space. Government, retail trade, self-employed and domestic workers (SEDW) and transportation, communications and public utilities (TCPU) are expected to increase by more than 30 percent. Growth in the wholesale trade sector will drive demand for substantial increases in the quantity of regional warehouse and distribution space. Manufacturing employment, however, is expected to decline by 8 percent.

In the South Suburban MSA, the FIRE and service sectors are projected to increase more than 200 percent during the 30-year period, while wholesale trade and TCPU are expected to grow more than 150 percent. Government, retail trade and SEDW (Self-employment and domestic workers) will increase more than 50 percent. The construction industry is expected to increase 30 percent, compared to 12 percent for San Diego County. Manufacturing employment is projected to decline by 6.5 percent.

According to SANDAG, the Otay Mesa CPA is forecasted to increase its employment base fivefold between 2000 and 2030 from 8,000 to 42,000 jobs. FIRE, services, wholesale, retail

trade and TCPU are the fastest growing sectors. Otay Mesa is forecasted to receive approximately 41.3 percent of all jobs created in the South Suburban MSA between 2000 and 2030. Otay Mesa's share of total employment in the South Suburban MSA is projected to increase from 9.4 percent in 2000 to 24.9 percent in 2030.

SANDAG forecasts that the manufacturing sector in Otay Mesa is expected to diminish in importance, only representing 6.5 percent of total employment in 2030, compared to 33.1 percent in 2000. SANDAG's projected decline in manufacturing's share of total employment is not due to fewer manufacturing jobs; rather, SANDAG forecasts that other sectors will comprise most future employment growth, thus diminishing manufacturing's relative share. In contrast, SANDAG forecasts that the services sector will account for 38.7 percent of total employment in Otay Mesa by 2030, adding more than 15,700 jobs during the 30-year period, compared to 5.2 percent in 2000. Wholesale trade is forecasted to grow by 3,725 jobs, or 44 percent from 2000 to 2030, comprising 12 percent of total jobs by 2030 compared to 16 percent in the year 2000.

### ***Mexican Trade***

Commercial trade at the Otay Mesa border crossing began in 1997, replacing the majority of trade through the San Ysidro border crossing. In 2003, the Otay Mesa border crossing had 4.9 million northbound personal vehicle crossings, a 4.4 percent compounded annual growth rate since 1997, and 697,000 truck crossings, a 3.5 percent annual growth rate since 1997. Between 2002 and 2003, truck crossings fell by 34,000, a 4.6 percent decline, due to a down period in the maquiladora industry.

The most important economic driver in Tijuana is the maquiladora sector. As of April 2004, there were 150,815 employees and 571 plants in the maquiladora sector. During the 1990's, Tijuana almost doubled the number of maquiladoras, from 388 in January of 1990 to 742 in December of 1999, adding 354 new plants during the 10-year period. Employment grew more rapidly, from 54,674 in January of 1990 to 165,696 in December of 1999, adding 111,022 employees to the maquiladora workforce. According to the Instituto Nacional de Estadística Geografía e Informática (INEGI) and the Instituto Mexicano del Seguro Social (IMSS), 21,839 of the 24,838 new jobs generated in the state of Baja California during the last three years of the period analyzed were directly associated with the maquiladoras, representing almost 88 percent of total new employment in the state.

In addition to the U.S. recession in the early 2000s, the introduction of China to the World Trade Organization (WTO) greatly affected Tijuana's economy, decreasing investments to the region and actually causing some firms to depart. Increased international competition is compelling the maquila sector to restructure operations away from simple, labor-intensive assembly, and move

towards the manufacture of higher value-added and larger products. Additionally, Tijuana's geographic competitive advantage positions it for increased production in markets and industries where "just-in-time" delivery of products are crucial. Tijuana also competes well in the manufacture of products that are bulkier and more difficult or time consuming to transport.

One of the industries with higher growth is the electronics industry, directly associated with higher consumption from the North American market. According to the "Secretaria de Desarrollo Economico de Tijuana" (SEDETI), companies such as JVC, Plantronics, Panasonic and Kyocera are in a hiring mode to cope with production demands. Other important companies include Sony, Samsung and Sanyo.

The health products industry in Tijuana has also experienced growth and is expected to follow this trend. The aging population in the United States is expected to fuel this industry in years to come.

The automotive industry in Tijuana has received a strong boost through the introduction of Toyota in Tijuana, strengthening this sector's role that started with Hyundai's plant. The auto parts industry is also expected to grow with the introduction of Toyota. It is reported that at least two suppliers will establish operations in Tijuana to service Toyota's plant operations. The new Toyota plant in eastern Tijuana has created great expectation in attracting more Asian automobile manufacturers and their suppliers to the region. According to Desarrollo Industrial de Tijuana, A.C. (DEITAC), Ford, Honda and Kia have also expressed an interest in establishing manufacturing operations in the region.

While Tijuana lost approximately 30 percent of its maquiladora employment during the early 2000s, it began to rebound during 2003-04; however, unlike past recovery periods when recoveries generated new historic highs, Maquiladora employment is still significantly lower than its previous peak prior to the U.S. recession. While Tijuana was affected by the U.S. recession and most economic development analysts interviewed in Tijuana expect that the future industrial composition and growth rates will be strong, it may not be as robust as the rates experienced during the 1980s and 1990s due to Asia's sustained competitiveness. These anticipated changes could affect the profile of demand for industrial space in Otay Mesa.

### ***Infrastructure Development, Policies and Incentives***

Both City and County of San Diego authorities have current plans to provide adequate water supply to all existing and future developments planned in Otay Mesa and East Otay Mesa.

The developed City of San Diego segment of this area is well served with potable water. In areas planned but not currently developed, a number of major water supply and distribution projects are either in construction, in design or proposed. These will provide complete coverage to the area.

The City of San Diego's Otay Mesa Public Facilities Financing Plan identifies thirty-four important road projects, of which twelve were completed and the remaining twenty-two are scheduled for construction and completion in the years 2006 through 2025. The most important of these is the construction of State Route 125, the development of SR-905, and SR-11 connecting SR-125 to the proposed third border crossing. SR-125 is scheduled to open in fall 2006.

A third port of entry, known as Otay Mesa II, is proposed in East Otay Mesa. The project responds to the need for a third border crossing in the region and would link Otay Mesa with the growing industrial areas in the eastern Tijuana metro area. The timing of this project is uncertain and is not expected to occur until the middle of the next decade.

The San Ysidro/Otay Mesa Enterprise Zone was established in 1992. The enterprise zone provides businesses several tax incentives, including credit for hiring qualified employees, credit for sales or use tax, net operating loss carryover, and net interest deduction for lenders. Additionally, employees who work in an enterprise zone are eligible for a tax credit that reduces the amount of their income tax.

San Diego's Foreign Trade Zone (FTZ) is in the Otay Mesa Community Planning Area. This strategic location serves the maquiladora industry of Tijuana, Mexico. The FTZ appeals to companies that buy or receive imported products from foreign or domestic vendors. Manufacturers, distribution companies, and exporters of imported merchandise take advantage of the FTZ.

## ***Real Estate Market Overview***

### **Industrial Market**

While Otay Mesa currently comprises just 5.7 percent of the total countywide inventory, it has been capturing approximately 36 percent of gross inventory growth during the past two and a half years. Otay Mesa also captured approximately 51 percent of regional net absorption.

There are however some qualifications to these statistics. First, the real estate market for the region's other industrial sectors, such as technology, was affected by a downturn in those sectors during the early 2000s which suppressed development in other areas of the county that are more

closely tied with those sectors. Second, vacancy rates in Otay Mesa are well above acceptable stabilized rates. Based on CoStar data, ERA estimates that there were approximately 660,000 square feet of oversupply in Otay Mesa last year that, based on recent trends, should take around two years for the market to absorb.

Nevertheless, ERA anticipates that Otay Mesa will continue to increase its share of the regional market place as the border economy rebounds, the workforce availability in South County grows and becomes more diversified with the development of Otay Ranch, competitive industrial areas that are more centrally located approach build-out, and firms that cannot afford the higher rents and land costs in the region's central sub-markets search for locations that are more affordable, including Otay Mesa.

### **Office Market**

The office market in Otay Mesa is very much an emerging market and currently limited to flex office space accommodating supporting industrial office uses, trade services, and local professional firms that are mostly associated with international trade or serve Otay Mesa clients.

ERA believes that for the forecast horizon, Otay Mesa will face significant competition from Chula Vista and its planned Eastern Urban Center in Otay Ranch within the South San Diego County sub-market, and that the South San Diego submarket itself will continue to face significant competition from office concentrations that are centrally located in the region, such as in Mission Valley, downtown San Diego and intensification in Kearny Mesa. Although some limited class A office space development is possible, much of the new office development will likely continue to be flex space serving local professional service industries.

### **Residential Market**

Through the third quarter 2003, Otay Mesa was capturing around 17 percent of the South Bay market that year. Monthly sales in the seven projects averaged 7.75 units for attached homes and 7.6 units for detached homes. Average home prices ranged from approximately \$272,000 for attached units to around \$490,000 for detached units.

The Chula Vista sub-market was the dominant competitive area in the South County sub-market, capturing around 78 percent of the South County market during the first three quarters of 2003. Otay Mesa and Chula Vista combined are capturing approximately 94 percent of the south Bay market. There remain approximately 2,800 more planned units yet to be constructed in Chula Vista projects that are currently marketing homes. Average sales prices in Chula Vista are comparable to the projects currently marketing in Otay Mesa, although attached units appear to command higher prices in Chula Vista.



Our analysis suggests that Otay Mesa is second to the Chula Vista market in the South Bay Sub-market in terms of both market capture and achievable prices. ERA believes that Otay Mesa is well positioned to eventually capitalize on depleted land supply in Chula Vista as Otay Ranch approaches build-out, particularly for single-family homes.

### **Retail Market**

The primary sources of market support for retail space within Otay Mesa are community residents, workers within Otay Mesa, Mexican nationals in the Tijuana metro area, and miscellaneous travelers and regional residents who live outside Otay Mesa. There is limited retail space currently, mostly convenience retail to serve the business market and neighborhood-serving centers in the western portion of the planning area.

Building materials is the dominant source for taxable retail sales in Otay Mesa to the City of San Diego, with the wholesale and retail segments combining for approximately 27.9 percent of total sales taxes collected. By comparison, the business-to-business sales in the light and heavy industrial sectors combine for a total of approximately 3.8 percent of retail sales taxes.

### **Land Sales**

Industrial land sale prices have grown from \$2.29 per square foot in 1991 to \$3.49 in 2000 to \$7.52 in 2004, for a 4.8 percent annual growth rate between 1991 and 2000, and a 21.2 percent annual growth rate since 2000. The recent surge in industrial land prices reflect the lack of readily deliverable and developable industrial land, despite the large supply of undeveloped land, and possibly speculative purchases.

Commercial retail land prices display a wide variety of per square foot values, ranging from around \$1.00 to approximately \$15.00. In general, however, most values appear to fall in the \$5.00 to \$10.00 range depending on the use and location.

### ***Market Demand Parameters***

ERA projected long-term absorption for the major land use categories. The projections for industrial space reflect three major scenarios:

**Low Scenario** – Assumes that industrial growth rates in Mexico rebound from recent declines (though not at historical rates) and that Otay Mesa's market position diversifies and appeals to general industrial users that are priced out of the region's central industrial

areas, such as Kearny Mesa. While it is assumed that Otay Mesa's recent regional market share is not maintained as other industrial sectors in the region recover and generate demand in the more competitive central sub-markets, Otay Mesa's market share overall during the period will continue above historical levels.

**Moderate Scenario** – Assumes that industrial growth rates in Mexico rebound more strongly, that Otay Mesa's market position diversifies and strongly appeals to general industrial users, especially as improvements to SR125 and a SR905 improve accessibility, and that Otay Mesa begins to attract a share of the region's growing technology sectors. Again, while it is assumed that Otay Mesa's recent regional market share will not be maintained, as other industrial sectors that generate demand elsewhere in the region recover, Otay Mesa's market share overall during the period will still above historical levels and the overall market share will be at a more aggressive rate than under the Low Scenario. The assumed market share is still below Otay Mesa's share of regional industrial land inventory, consistent with historical trends, due to market preferences for other sub-markets that still have significant supply and the intensification of industrial land use in the highly-preferred central sub-markets.

**High Scenario** – This scenario reflects the City of San Diego's Economic Development Division's position that the high regional market share that Otay Mesa experienced during the last few years will be sustained and that Otay Mesa will aggressively capture more than its share of regional land supply due continued strong demand in warehousing/distribution, relocated manufacturing, infrastructure improvements and competitive land and occupancy costs, the lost of industrial land in central locations to other uses, and limitations in industrial land intensification in the region.

Overall, it is estimated that Otay Mesa can support the following increases in the amount of developed and occupied commercial and industrial land by 2030, beyond what was built in 2000:

**Estimated Demand for Additional Developed Gross Acres Within the Otay Mesa CPA  
2000 to 2030**

	<b>Low</b>	<b>Moderate</b>	<b>High</b>
Industrial	835	1,035	1,497
Office	20	25	29
Retail	87-109	87-109	87-109

Source: Economics Research Associates

The industrial projection accommodates approximately 14.5 to 26.1 million additional square feet of industrial space, 1.8 to 2.5 million square feet of additional office space, and 1.0-1.3 million square feet of additional retail space. ERA believes that the thirty year demand will fall closer to the Moderate Scenario, or an average of over 600,000 square feet of industrial building space per year (at a 7 percent structural vacancy), while the City of San Diego's Economic Development Division staff believe that the High Scenario, or an annual average of almost 870,000 square feet of industrial building space per year, is more likely. This compares to an average absorption of 474,000 square feet per year on Otay Mesa from 1986 to 2004.

In addition, it is estimated that the market could support up to 8,000 additional residential units by 2030 beyond what SANDAG currently forecasts given the existing adopted community plan, of which approximately 43 percent may be single-family and 57 percent may be multi-family (owner and renter occupied). The land area that these units might comprise depends on the amount of residential development and ultimate densities. Given the lack of developable land for single-family detached housing in the region, the market would support conventional 4 units per acre; however, given the moderate incomes in the broader South County market and wages associated with jobs in Otay Mesa, other forms of single-family housing, such as small lot homes and attached townhouses up to 12 to 17 units per acre, would also be marketable if community amenities are offered. Multi-family housing density could also range up to 30 to 60 units per acre, possibly higher in later phases as land values rise, although income and rent constraints will be a limiting factor, especially if the housing is to be affordable to people working in Otay Mesa's industrial sectors.

The estimated retail demand potential from Otay Mesa residents, workers, lodging guests, residents of Mexico, and miscellaneous sources supports almost 1 million square feet of retail space, or 87 acres of land, between 2000 and 2030, in addition to the existing supply of developed retail land. If the Otay Mesa Community Plan is amended to increase household capacity by 8,000 households, the estimated demand for new retail land increases by 22 acres, for a total incremental demand for 109 acres.

The estimated land area absorbed assumes efficient land utilization and was estimated separately for each use. The aggregate amount of land absorbed could be marginally less with mixed-use development, and use of shared resources, such as parking, landscaping, and circulation infrastructure. Mixed-use could include a combination of office, retail and services, lodging, and some multi-family residential development. Achievable rents, land prices, parking configuration, and regulatory policies will be the primary determinants of the potential for mixed-use development.

## ***Planning Recommendations***

Based on these findings, ERA suggests the following as input to the Otay Mesa Community Plan Update:

- While we believe that the Moderate-Scenario for industrial land is more likely, plan for more industrial capacity than forecasted under this scenario for a fluid market, to maintain upside potential, and post 2030 capacity. This would accommodate demand potential that approaches the High-Scenario for industrial land, which the City of San Diego Economic Development Division staff prefers for the City from a long-term economic development perspective. While land use planning may provide for more industrial land than forecasted under the Moderate Scenario to be absorbed as the market dictates (by 2030 or beyond), financial planning should be based on the more conservative Moderate Scenario, with sensitivity testing of the Low and High Scenarios, and perhaps other potential absorption assumptions.
- As part of the provision of industrial land, plan for and anticipate some industrial redevelopment of underutilized properties (truck storage, Brown Field surplus, auto-dismantling, and building reuse, for example), but identify where the displaced use would likely continue to function in the region (U.S. or Mexico) to service the border economy, or if the displaced use would likely have to relocate outside the region.
- Consider expanding light industrial/business park capacity within surplus commercial land areas to accommodate potential long-term demand for industrial land.
- Reserve some land specifically for border trade operations, in coordination with the County's Otay Mesa lands.
- Prepare to diversify Otay Mesa's industrial profile and utilization to appeal to non-border economy industries in addition to border economy uses.
- Plan for housing densities that would allow a large proportion of units to be built at price-points that are affordable to people working in Otay Mesa.
- Cluster multi-tenant office uses with other commercial uses, lodging, and multi-family residential uses to create a mixed-use community center for Otay Mesa that gives the community a focused identity and is supportive of public transportation, consistent with the San Diego's Strategic Framework Plan – "City of Villages".

## II. Demographic Context

The following section examines population and housing trends and projections for San Diego County, South Suburban Majors Statistical Area, and Otay Mesa Community Planning Area.

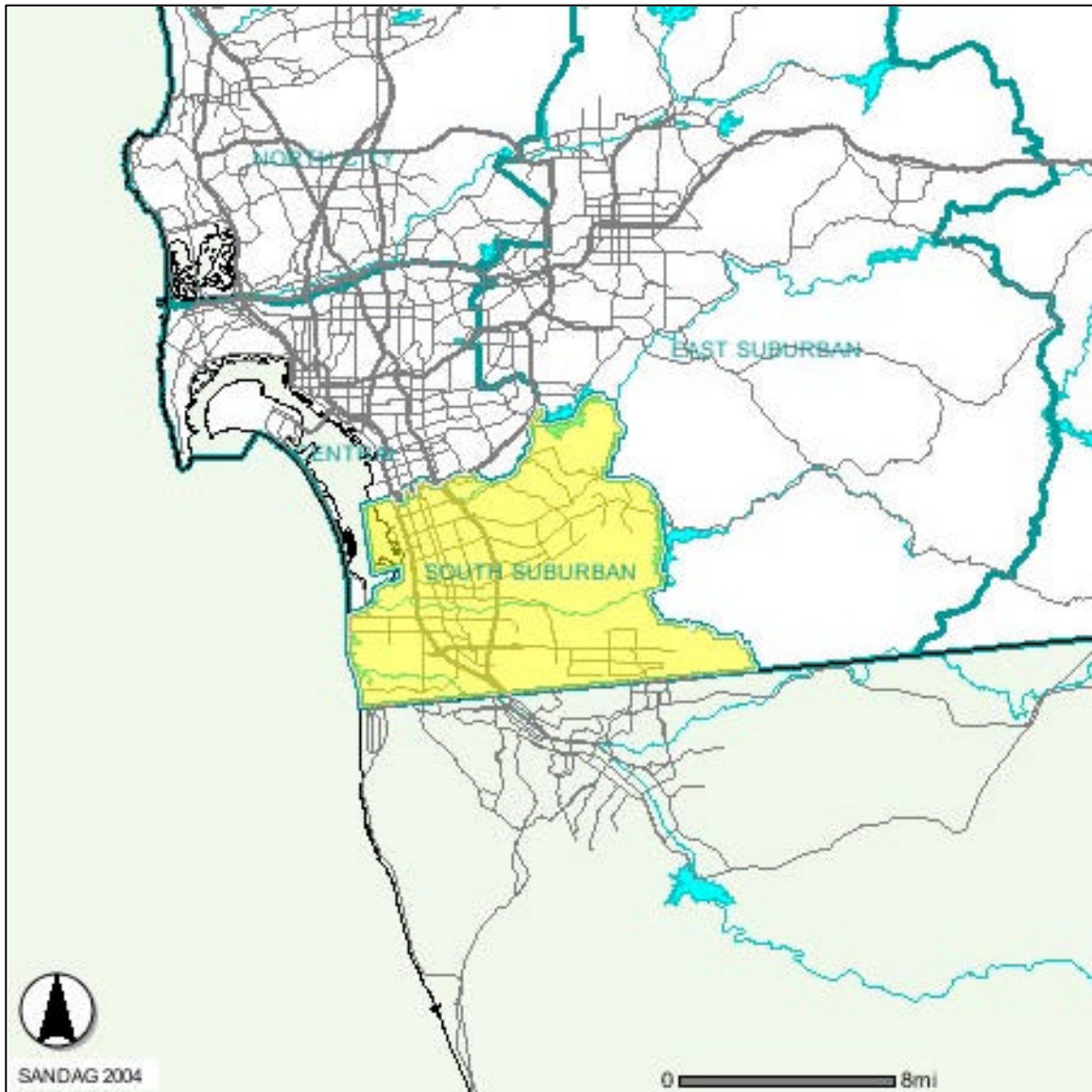
### ***Population***

The San Diego Association of Governments (SANDAG) forecasts San Diego County to grow from 2.8 million people in 2000 to 3.9 million by 2030, adding more than 1 million people to the region, representing a 37 percent increase, and a 1.06 percent compounded annual growth rate (CAGR). During the same period, the South Suburban Major Statistical Area, (which includes the City of Chula Vista, Imperial Beach and the City of San Diego's Community Planning Areas of Tijuana River Valley, San Ysidro, Otay Mesa Nestor, and Otay Mesa) is forecasted to grow from almost 308,000 to 492,000, adding almost 185,000 people during the 30-year period, for a 60.1 percent increase and a 1.6 percent CAGR, faster than the regional average. The South Suburban MSA is projected to receive 17.8 percent of the total growth in San Diego County between 2000 and 2030. Exhibit II-1 shows the South Suburban Major Statistical Area (MSA).

Under current land use policies, the Otay Mesa Community Planning Area (CPA) is projected to grow from 1,740 people in 2000 to 49,282 by 2030, adding 47,542 people for a compounded annual growth rate of 11.8 percent., as shown in Table II-1. Otay Mesa is forecasted to capture 25.7 percent and 4.6 percent of the net growth in South Suburban and San Diego County respectively.

Before the introduction of new housing developments in 2000, most residents lived scattered in certain pockets of Otay Mesa. Between 2000 and 2004, Otay Mesa CPA added more than 5,000 people for a 287.5 percent increase.

**Exhibit II-1 - South Suburban Major Statistical Area**



**Table II-1 Population Growth Trends 2000-2030**

Market Areas	2000	2004	2010	2020	2030	Numeric Change 2000-2030	Percent Change 2000- 2030	Average Annual Growth Rate 2000- 2030
Otay Mesa	1,740	6,743	24,685	48,316	49,282	47,542	2732.3%	11.8%
South Suburban	307,469	351,400	410,096	470,926	492,319	184,850	60.1%	1.6%
San Diego County	2,813,833	3,017,204	3,211,721	3,528,605	3,855,085	1,041,252	37.0%	1.1%

Source: SANDAG and Economics Research Associates

### Age Distribution

As shown in Tables II-2 and II-3, children and teenagers are expected to represent a lower share of total population in San Diego County, the South Suburban MSA, and the Otay Mesa CPA in 2030 compared to 2000, while the young adult 20 and 34 age group is projected to decline proportionately in San Diego County and the South Suburban MSA, but increase slightly in Otay Mesa.

The older-age groups are forecasted to grow significantly between 2000 and 2030 as the “baby-boom” generation ages. In fact, people between 55 and 74 years old are projected to increase from 7.5 percent to 17.5 percent of the total population in Otay Mesa, and 12.9 percent to 22.7 percent in South Suburban between 2000 and 2030. For San Diego County, the percentage of people between 55 and 74 years old is forecasted to increase from 13.0 percent to 21.3 percent between 2000 and 2030.



**Table II-2 Age Distribution, Otay Mesa CPA, South Suburban MSA and San Diego County, 2000 - 2030**

Age Groups (Years)	Otay Mesa CPA		South Suburban MSA		SD County	
	2000	2030	2000	2030	2000	2030
<b>Total Pop</b>	1,740	49,282	307,469	492,319	173,556	278,183
0-9	19.9%	8.7%	16.1%	11.4%	14.6%	11.7%
10-19	17.0%	11.5%	16.3%	13.2%	14.2%	12.1%
20-34	26.7%	27.1%	22.6%	17.9%	24.0%	20.7%
35-54	27.4%	30.5%	27.9%	27.8%	28.8%	25.2%
55-64	5.1%	11.0%	7.2%	12.7%	7.3%	11.1%
65-74	2.5%	6.5%	5.6%	9.9%	5.7%	10.2%
75+	1.6%	4.6%	4.2%	7.0%	5.5%	9.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Median Age</b>	28.40	36.30	31.80	40.10	33.20	38.90

Source: SANDAG and Economics Research Associates

**Table II-3 Age Distribution, Otay Mesa CPA, South Suburban MSA and San Diego County, 2000 - 2030**

Age Groups (Years)	Otay Mesa		South Suburban		SD County	
	2000	2030	2000	2030	2000	2030
0-9	347	4,308	49,517	56,225	411,450	451,210
10-19	295	5,671	50,077	65,177	399,588	467,415
20-34	464	13,347	69,521	88,044	674,313	796,297
35-54	476	15,049	85,805	136,946	810,066	971,914
55-64	88	5,442	22,229	62,699	204,666	427,320
65-74	43	3,193	17,354	48,911	160,059	394,142
75+	27	2,272	12,966	34,317	153,691	346,787
<b>Total Pop</b>	1,740	49,282	307,469	492,319	2,813,833	3,855,085

Source: SANDAG and Economics Research Associates

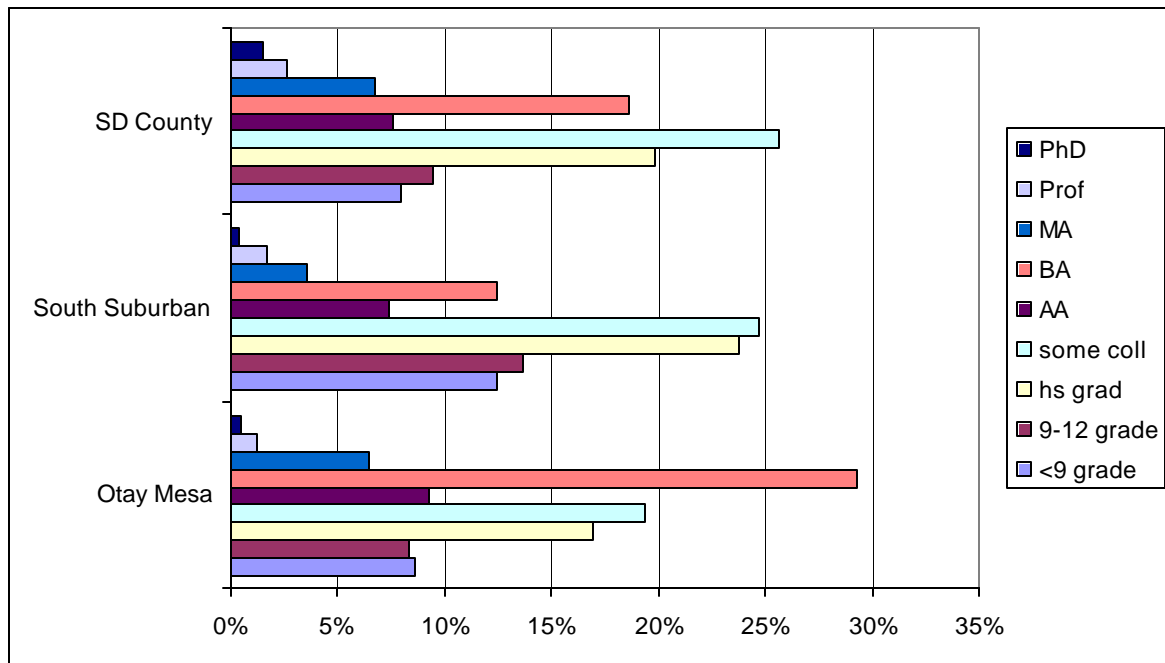


## Education

The population in Otay Mesa is relatively well educated, as shown in Exhibit II-2, especially for South County. In 2000, of the total population 25 years and older in Otay Mesa, 29 percent had a bachelor's degree, compared to 12 percent in the South Suburban MSA and 19 percent in San Diego County.

The percentage of the total population 25 years and older in 2000 without a high school degree was 17 percent for Otay Mesa, compared to 26 percent in South Suburban and 17 percent in San Diego County.

**Exhibit II-2 Education in San Diego County, South Suburban MSA and Otay Mesa CPA, 2000**



Source: SANDAG and Economics Research Associates

## Racial and Ethnic Composition

Table II-4 shows race distribution for San Diego County, the South Suburban MSA, and Otay Mesa CPA for 2000 and 2030. Hispanics, which hold a dominant share of the populations in Otay Mesa and the South Suburban MSA, are counted separately as an ethnic group rather than as a racial distinction.

Of all Non-Hispanics, Asians occupied the highest percentage of the total population in Otay Mesa in 2000, with 22 percent, while Whites occupied the highest percentage in South Suburban and San Diego County, with 28 percent and 55 percent respectively. By 2030, Non-Hispanic Whites are forecasted to decrease considerably as a percentage of the total population in all regions. Between 2000 and 2030, the Non-Hispanic White population in Otay Mesa is expected to fall from 16 percent to 4 percent, well below their 40 percent share in San Diego County.

The Asian population is expected to see its share drop to 5 percent in Otay Mesa by 2030, even though the Asian population proportionately is growing slightly regionally.

In Otay Mesa, growing Black and Hispanic populations are projected to fill the losses in Whites and Asians. The Black population in Otay Mesa is forecasted to increase its share of the total population from 4.0 percent in 2000 to 13.0 percent by 2030, while the Hispanic population is projected to increase its share of the total population from 54 percent in 2000 to 76 percent in 2030. For comparison, Hispanics are projected to increase from 53 percent to 68 percent of the population in the South Suburban MSA, and increase from 27 percent to 37 percent between 2000 and 2030 in San Diego County.

**Table II-4 Race and Ethnicity, San Diego County, South Suburban MSA and Otay Mesa CPA, 2000 - 2030**

Year	2000	2000	2000	2030	2030	2030
Area	Otay Mesa	South Suburban	SD County	Otay Mesa	South Suburban	SD County
<b>Race</b>						
NH White	16%	28%	55%	4%	7%	40%
NH Black	4%	5%	5%	13%	6%	5%
NH Am Indian	0%	0%	1%	0%	0%	0%
NH Asian	22%	10%	9%	5%	12%	10%
NH Hawaiian	0%	0%	0%	0%	2%	2%
NH other	0%	0%	0%	0%	2%	2%
NH 2+ races	3%	3%	3%	1%	4%	4%
Subtotal	46%	47%	73%	24%	32%	63%
<b>Ethnicity</b>						
Hispanic Origin	54%	53%	27%	76%	68%	37%
<b>Total</b>	100%	100%	100%	100%	100%	100%

NH=Non-Hispanic

Source: SANDAG and Economics Research Associates

### **Households**

According to SANDAG, Otay Mesa is projected to receive 11,945 new households between 2000 and 2030, representing 26.3 percent of total new households in the South Suburban MSA and almost 4.0 percent of total new households in San Diego County. Otay Mesa is forecasted to grow from 459 households in 2000 to 12,405 by 2030 for a 2,602 percent increase and 11.62 percent CAGR. Otay Mesa has already added 2,110 new households between 2000 and 2004 for a total 2,569, a 460 percent increase in four years.

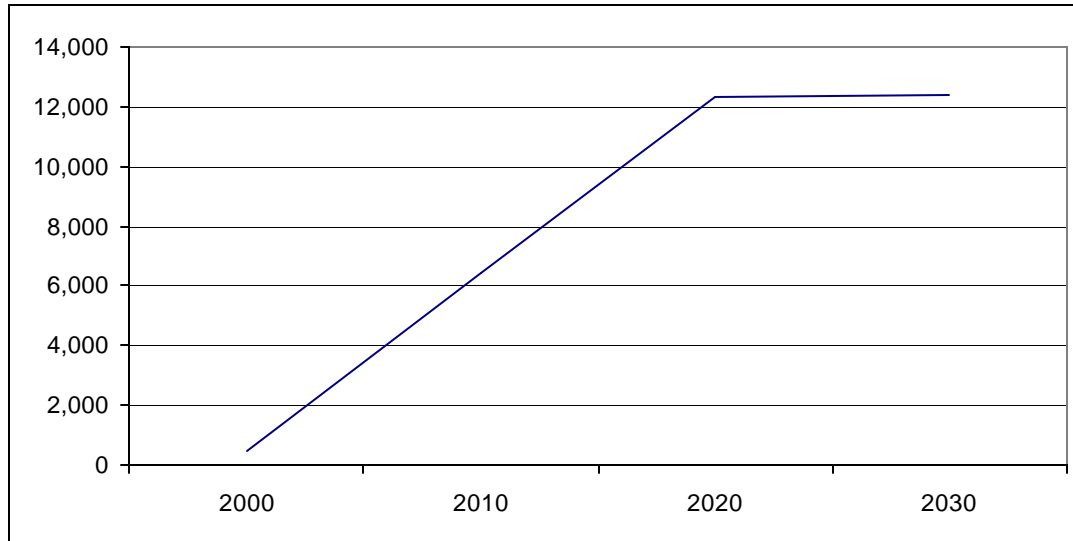
Table II-5 presents household forecasts for San Diego County, South Suburban, and Otay Mesa for 2000, 2004, 2010, 2020 and 2030. The South Suburban MSA is expected to add over 45,400 new households, increasing 48.3 percent between 2000 and 2030, representing 15 percent of total county growth. During the same timeframe, San Diego County is projected to add more than 300,000 households for a 30.3 percent increase.

Exhibit II-3 presents household growth forecasts for Otay Mesa CPA to the year 2030. The Otay Mesa CPA is projected to add 5,983 new households between 2000 and 2010 for a 30.2 CAGR, and 5,862 new households between 2010 and 2020 for a 6.68 percent CAGR. SANDAG forecasts that almost all growth in Otay Mesa will occur between 2000 and 2020; only adding 101 new households are expected after 2020, due to SANDAG's assumption that Otay Mesa will approach near build-out capacity by 2020.

**Table II-5 Household Projections, San Diego County, South Suburban MSA and Otay Mesa CPA, 2000 - 2030**

Market Areas	2000	2004	2010	2020	2030	Numeric Change 2000- 2030	Percent Change 2000-2030	Average Annual Growth Rate 2000- 2030
Otay Mesa	459	2,569	6,442	12,304	12,405	11,946	2602.61%	11.6%
South Suburban	94,080	108,083	121,787	135,377	139,522	45,442	48.30%	1.3%
SD County	994,677	1,045,812	1,116,323	1,193,475	1,296,496	301,819	30.34%	0.8%

Source: SANDAG and Economics Research Associates

**Exhibit II-3 Household Projections, Otay Mesa CPA, 2000 - 2030**

Source: SANDAG and Economics Research Associates

### **Tenure**

According to SANDAG, in 2000, 94 percent of all households in Otay Mesa owned their home and only 6 percent rented, well below South County and regional averages. Of the total 459 housing units, 430 were owner-occupied and 29 were renter-occupied. In the South Suburban MSA, of the total 94,080 housing units in 2000, 51,576, or 55 percent, were owner-occupied, while 42,504, or 45 percent, were renter occupied. The percentage of owner-occupied housing units in the South Suburban MSA is the same as in San Diego County.

### **Type**

In 2000, 94.2 percent of all housing units in Otay Mesa CPA were single-family housing units and 5.8 percent were multiple-family housing units, also well below regional averages. SANDAG forecasts an important shift in the share of single and multiple housing units for Otay Mesa CPA, as shown in Table II-6.

**Table II-6 Housing Type Share Projections, Otay Mesa CPA, 2000 - 2030**

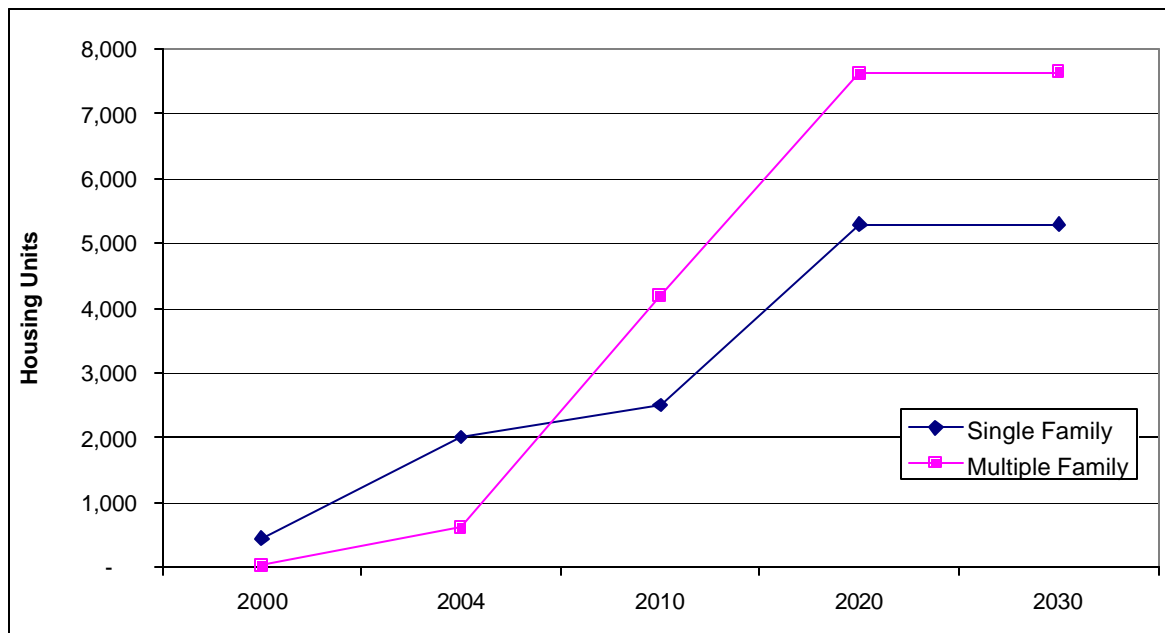
	2000	2004	2010	2020	2030
Single Family	94.2%	76.7%	37.4%	41.0%	40.9%
Multiple Family	5.8%	23.3%	62.6%	59.0%	59.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: SANDAG and Economics Research Associates

By 2030, it is forecasted that single-family homes will account for 40.9 percent of all housing units. This implies that multi-family housing will comprise a much larger share of incremental new development than it comprises of the total housing supply regionally. The greatest shift occurs between 2004 and 2010, as 88 percent, or 3,584 of the total 4,079 new housing units that SANDAG forecasts will be built in the Otay Mesa CPA are multiple-housing units.

Exhibit II-4 shows household projections by housing type in Otay Mesa CPA between 2000 and 2030.

**Exhibit II-4 Household Projections by Housing Type, Otay Mesa CPA, 2000 - 2030**



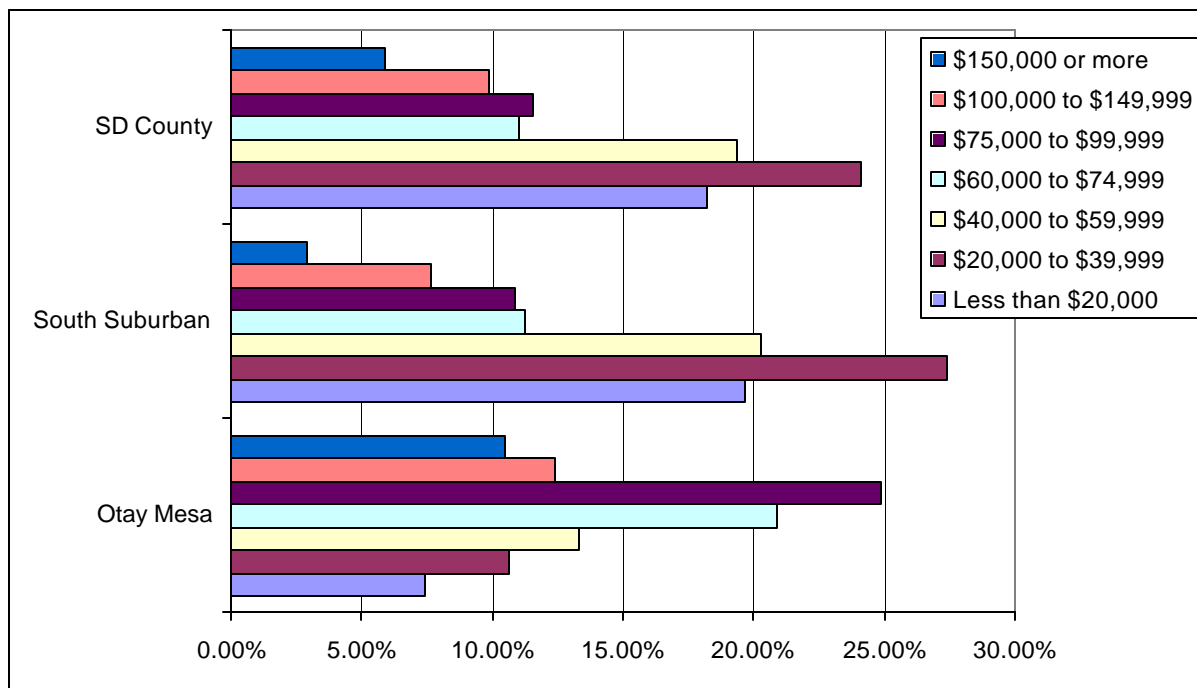
Source: SANDAG and Economics Research Associates

As previously discussed, SANDAG forecasts that almost all of the growth in the Otay Mesa CPA will occur by 2020 and will subside thereafter, presumably due to an assumed build-out of Otay Mesa CPA's existing planned capacity for residential development. If this capacity is increased, household growth could continue beyond 2020 and above what SANDAG currently estimates based on existing land use policy.

## Household Income

Exhibit II-5 below presents the estimated annual household income distribution for the individual market areas in 2000. According to SANDAG, the Otay Mesa CPA Community Planning Area had a very low percentage of low-income households compared to the South Suburban MSA and San Diego County in 2000. Households earning less than \$20,000 represented 7.4 percent of all households in Otay Mesa CPA, while in South Suburban and San Diego County the percentage was 19.7 percent and 18.2 percent respectively. While households with average incomes between \$20,000 and \$39,999 represented the highest percentage in the South Suburban MSA and San Diego County, with 27.4 percent and 24.1 percent respectively, only 10.7 percent of households in Otay Mesa were in this category. Almost half of all households in Otay Mesa CPA, 45.7 percent, earned between \$60,000 and \$100,000 in 2000, much higher than the 22.2 percent in the South Suburban MSA and 22.6 percent in San Diego County.

**Exhibit II-5 Annual Household Income, San Diego County, South Suburban MSA and Otay Mesa CPA, 2000**



Source: SANDAG and Economics Research Associates



Households earning more than \$100,000 represented 22.9 percent of all households in Otay Mesa CPA. Comparatively, 10.5 percent and 15.7 percent of all households in the South Suburban MSA and San Diego County respectively earned more than \$100,000 in 2000.

Overall, the median household income in Otay Mesa in 2000 was \$73,360, more than \$30,000 higher than South Suburban MSA and \$26,000 higher than San Diego County. In 2000, the median household income was \$42,596 for the South Suburban MSA and \$47,268 for San Diego County. As more multi-family housing is developed in Otay Mesa, median household incomes are likely to fall.

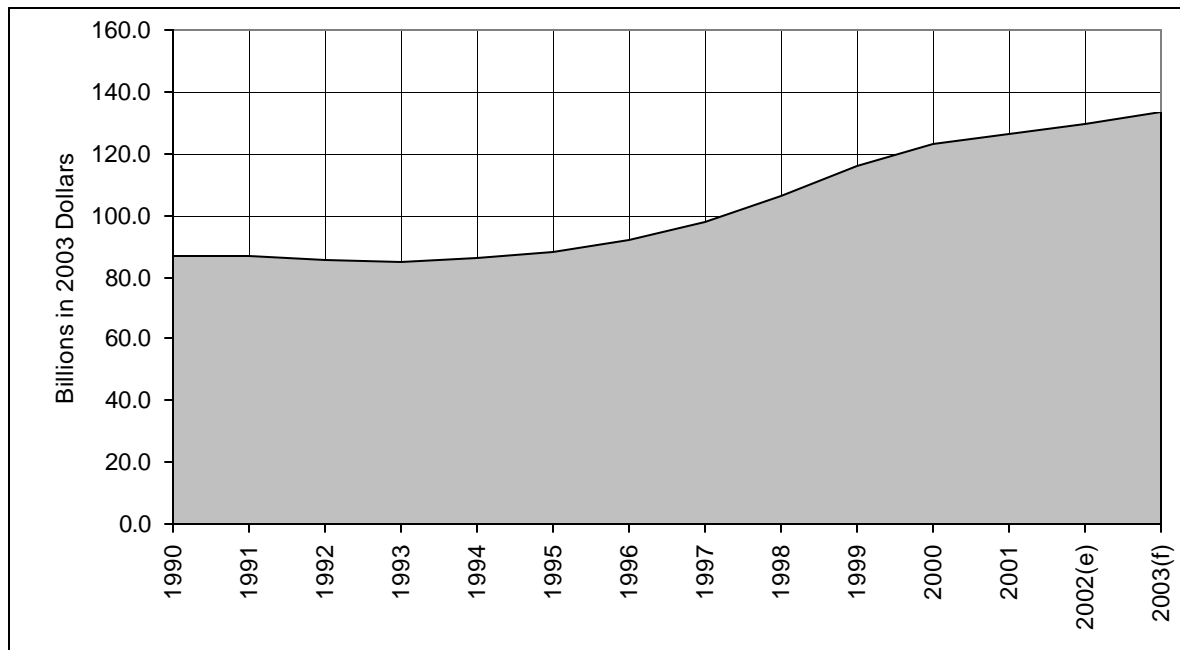
### III. Economic Trends

#### ***Regional Economic Base***

The San Diego region has diversified its economic base since 1995; however, the major contributors to the economy, as measured by contribution to the Gross Regional Product (GRP)<sup>1</sup>, are still manufacturing, the military, tourism, and business and technology services.

According to the San Diego Regional Chamber of Commerce, San Diego County economy's GRP grew dramatically in real terms (adjusted for inflation) from 1980 to 1990. It then stagnated and even decreased until 1993, grew slowly up to 1995 and accelerated its growth rate afterwards. The period from 1997 to 2000 registered the most impressive growth, as shown in Exhibit III-1.

**Exhibit III-1 San Diego County Real Gross Regional Product**



Source: San Diego Regional Chamber of Commerce.  
San Diego Economic Bulletin, Forecast 2003, Volume 51, Number 1.

Population has continued its steady growth, fueled by foreign and national migration and the natural increase of the base population. From 1990 to 2003, San Diego County's population grew by over 493,700 people, for an average compounded annual growth rate of 1.4 percent. San Diego's economic base has successfully diversified and lessened its reliance on the defense industry. Nevertheless, military funds to the region increased by \$3.2 billion in 2002, a 30

<sup>1</sup> This measure is the regional version of the Gross Domestic Product, or GDP, which is a measure of total economic output.



percent increase from Department of Defense expenditures in 2001, attributed directly to the tragic events of 9/11. In 2002, the region had more than 105,000 active duty Personnel and 24,000 Department of Defense civilian jobs in the local economy.

Some of the new and growing industries in the region include biotechnology, electronics, software, telecommunications, and computer applications. The region's economy has also benefited with NAFTA related trade given its strategic geographic location. Since its inception in 1994, the total dollar volume of international trade has more than tripled in the region.

San Diego County's proximity to large short-haul markets, such as Southern California, Northern California, Arizona, Southern Nevada, and other western states have sheltered the region's tourism economy somewhat from the impacts that 9/11 had on national and international tourism. With more tourism infrastructure in place, such as the expansion of the convention center, establishment of a cruise industry, Native American gaming, and new hotel construction, the tourism industry is expected to attract more visitors in years to come.

In 2003, 1.43 million people were employed on average in San Diego County throughout the year and the unemployment rate stood at 4.4 percent, increasing from 3.4 percent in 2001 and 4.3 percent in 2002. Although the unemployment rate has increased over the past few years, San Diego has performed better than the state of California, which recorded an unemployment rate of 6.5 percent<sup>2</sup> in 2003. It should be mentioned that the increase in the unemployment rate is partly due to labor force migration to San Diego given the region's strong economy, and not the result of a lack of job generation. In 2002, more than 10,000<sup>3</sup> jobs were added to the local economy, contrasting with the 125,000<sup>4</sup> jobs lost in the State of California as a whole. San Diego's rate of 4.4 percent is near the "full employment" threshold.

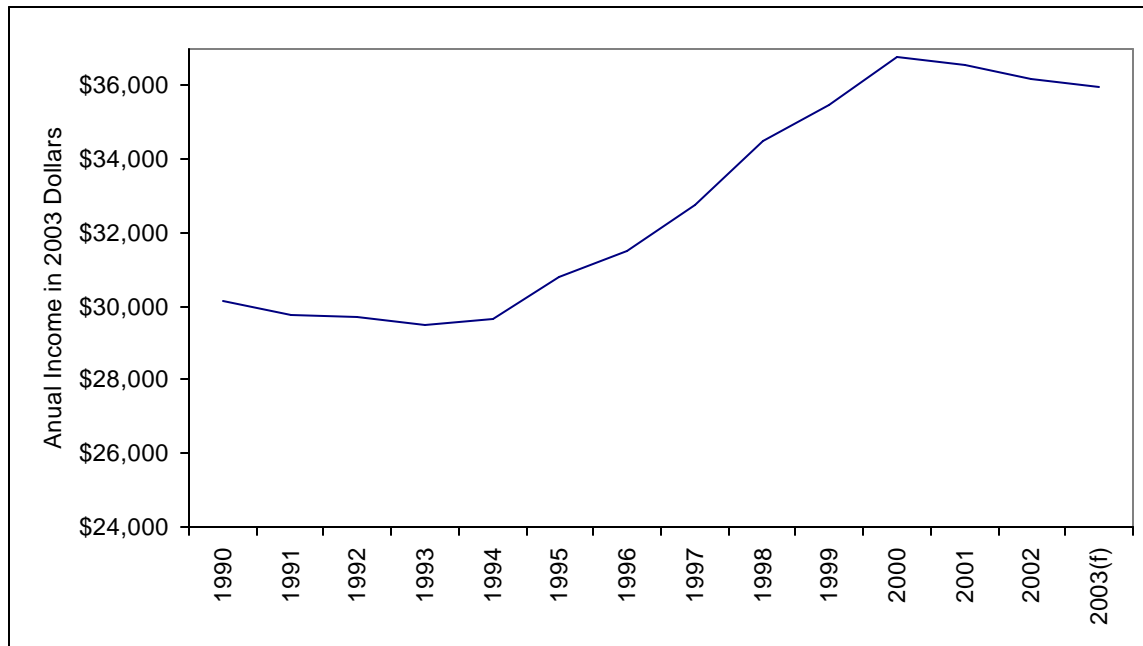
Exhibit III-2 illustrates that during the 14-year period between 1990 and 2003, real personal income has increased by approximately 20 percent in San Diego County. This is despite modest decreases during the recent recession and that of the early 1990's.

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<sup>2</sup> San Diego Regional Chamber of Commerce, 2003 Economic Outlook

<sup>3</sup> San Diego Regional Chamber of Commerce, 2002 Year in Review, Volume 51, Number 3

<sup>4</sup> idem

**Exhibit III-2 San Diego County Real Mean Per Capita Income**

Source: San Diego Regional Chamber of Commerce.

San Diego County has become one of the least affordable housing markets in the country. Following the 1990's recession, home prices have increased every year since 1996. Adjusted for inflation, the average home value in the county has increased 76.4<sup>5</sup> percent since 1995, for a compound annual growth rate of 7.3 percent, far exceeding inflation. Such increases are the result of various economic factors, such as stable economic growth, high in-migration rates that increase the demand for housing, scarcity of land and new housing supply, and historically low interest rates.

Affordability has become a major concern for the region, as the proportion of local households that can afford a home has dramatically decreased in the last 10 years. During the 1994 recession, the proportion of households who could afford the median price home was 48 percent; today, only 16 percent of households can afford the median price home in San Diego County<sup>6</sup>.

### Development Trends

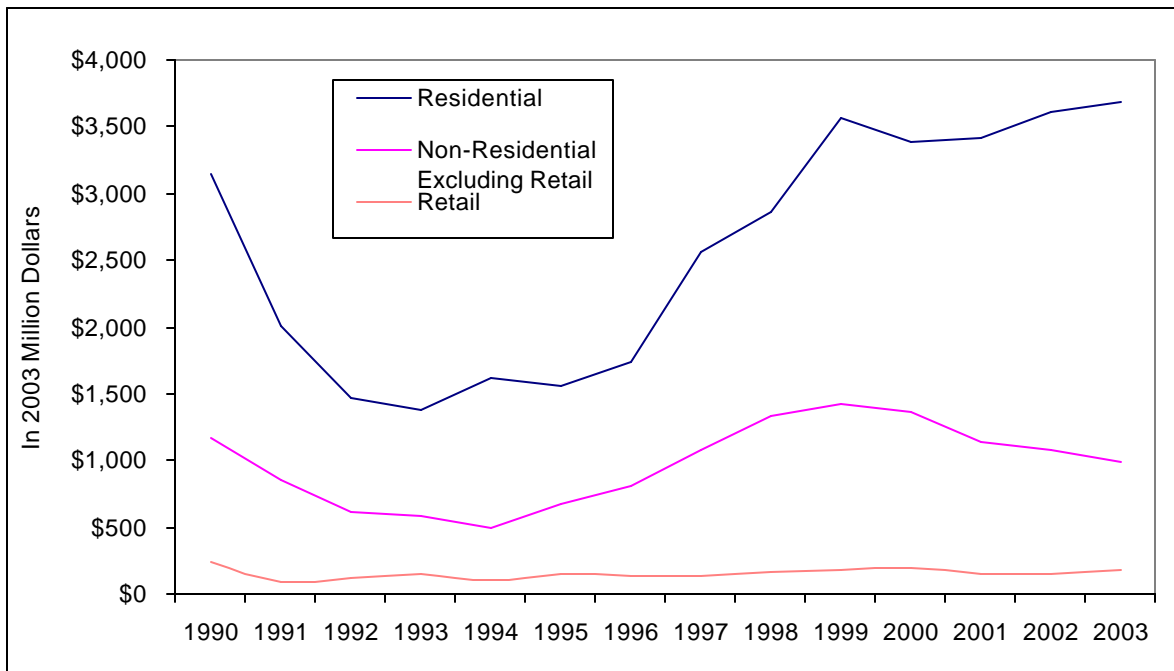
Exhibit III-3 shows development trends measured by permit valuation (in 2003 dollars) for residential, non-residential excluding retail and retail for San Diego County. Residential permit value averaged \$2.5 billion from 1990 to 2003 in constant 2003 dollars, reaching \$3.6 billion in 2003. Non-residential permit value, excluding retail permits, averaged \$971 million from 1990 to

<sup>5</sup> San Diego Regional Chamber of Commerce, Economics Research Associates

<sup>6</sup> San Diego Regional Chamber of Commerce, San Diego Economic Bulletin

2003 in constant 2003 dollars, reaching a peak of \$1.4 billion in 1999 (2003 constant dollars). Retail permit value averaged \$153 million from 1990 to 2003 in constant 2003 dollars, reaching \$198 million in 2000.

**Exhibit III-3 Countywide Development Permit Value, 1990 - 2003**



Source: San Diego Regional Chamber of Commerce

### ***Employment Trends and Characteristics***

SANDAG forecasts that the San Diego region may add 440,000 jobs between 2000 and 2030, increasing its workforce from 1.38 million to 1.82 million, for a compounded annual growth rate (CAGR) of 0.9 percent. Employment growth projections for the San Diego region are evenly distributed throughout the 30-year term. It is estimated, on average, that 146,000 jobs will be added to the local economy every ten years. Table III-1 shows employment growth by industry for San Diego County between 2000 and 2030.

The financial, insurance and real estate (FIRE) and services sectors in the San Diego region are projected to grow by 50 percent during the 30-year period. Wholesale trade is expected to grow by 46 percent, while government, retail trade, self-employed and domestic workers (SEDW) and transportation, communications and public utilities (TCPU) are expected to increase more than 30 percent. Manufacturing employment, however, is expected to decline by 8 percent.

**Table III-1 Employment Growth by Industry, San Diego County, 2000 - 2030**

	<b>2000</b>	<b>2010</b>	<b>% Change</b>	<b>2020</b>	<b>% Change</b>	<b>2030</b>	<b>% Change</b>
Agriculture	11,800	10,648	-9.8%	9,897	-7.1%	9,782	-1.2%
Construction	70,000	78,655	12.4%	79,396	0.9%	78,621	-1.0%
Finance, Insurance & Real Estate	69,501	81,759	17.6%	95,641	17.0%	107,216	12.1%
Government	206,600	240,239	16.3%	257,928	7.4%	273,174	5.9%
Manufacturing	129,200	116,562	-9.8%	116,822	0.2%	118,494	1.4%
Military	90,093	90,093	0.00%	90,093	0.0%	90,093	0.0%
Retail trade	217,100	239,456	10.3%	260,113	8.6%	283,899	9.1%
Self employment, domestic workers	89,380	98,305	10.0%	108,281	10.2%	118,673	9.6%
Services	399,202	461,117	15.5%	529,159	14.8%	600,497	13.5%
Transportation, Comm. & P. Utilities	50,800	55,880	10.0%	60,683	8.6%	69,128	13.9%
Wholesale trade	51,000	55,808	9.4%	64,870	16.2%	74,453	14.8%
<b>Total</b>	<b>1,384,676</b>	<b>1,528,522</b>	<b>10.4%</b>	<b>1,672,883</b>	<b>9.4%</b>	<b>1,824,030</b>	<b>9.0%</b>

Source: Sandag and Economics Research Associates

Employment growth in the South Suburban Major Statistical Area (MSA) is expected to increase from over 85,900 to over 167,000 between 2000 and 2030, adding more than 81,000 jobs for a CAGR of 2.2 percent, well above the countywide average of 0.9 percent. The projected job growth between 2020 and 2030 is more than double the previous decade. Table III-2 shows employment growth by industry for the South Suburban Major Statistical Area in San Diego County between 2000 and 2030.

In the South Suburban MSA, the FIRE and services sectors are projected increase more than 200 percent during the 30-year period, while wholesale trade and TCPU are expected to grow more than 150 percent. Government, retail trade and SEDW will increase more than 50 percent. The Construction Industry is expected to increase 30 percent, compared to 12 percent for San Diego County. Manufacturing employment is projected to decline by 6.5 percent.

**Table III-2 Employment Growth by Industry, South Suburban MSA, 2000-2030**

	<b>2000</b>	<b>2010</b>	<b>% Change</b>	<b>2020</b>	<b>% Change</b>	<b>2030</b>	<b>% Change</b>
Agriculture	251	253	0.80%	257	1.58%	258	0.39%
Construction	1,905	2,153	13.02%	2,174	0.98%	2,491	14.58%
Finance, Insurance & Real Estate	3,369	4,515	34.02%	7,391	63.70%	10,269	38.94%
Government	19,312	23,251	20.40%	26,426	13.66%	29,338	11.02%
Manufacturing	9,998	9,046	-9.52%	9,080	0.38%	9,355	3.03%
Military	200	200	0.00%	200	0.00%	200	0.00%
Retail trade	17,927	20,446	14.05%	23,839	16.59%	28,370	19.01%
Self employment, domestic workers	10,660	12,463	16.91%	14,989	20.27%	17,410	16.15%
Services	14,737	20,929	42.02%	33,661	60.83%	50,426	49.81%
Transportation, Comm. & P. Utilities	3,433	4,612	34.34%	5,972	29.49%	8,790	47.19%
Wholesale trade	4,112	5,272	28.21%	7,587	43.91%	10,346	36.36%
<b>Total</b>	<b>85,904</b>	<b>103,140</b>	<b>20.06%</b>	<b>131,576</b>	<b>27.57%</b>	<b>167,253</b>	<b>27.12%</b>

Source: SANDAG and Economics Research Associates

Table III-3 shows the South Suburban MSA's net growth employment share of San Diego County between 2000 and 2030 for FIRE, government, retail trade and services sectors. As shown in the table, for all categories, the South Suburban MSA's share of employment growth progressively increases each decade.

**Table III-3 South Suburban MSA Share of San Diego County Employment by Major Industry Sector, 2000 - 2030**

	<b>2000-2010</b>	<b>2010-2020</b>	<b>2020-2030</b>
Finance, Insurance & Real Estate	9.3%	20.7%	24.9%
Government	11.7%	17.9%	19.1%
Retail trade	11.3%	16.4%	19.0%
Services	10.0%	18.7%	23.5%

Source: SANDAG and Economics Research Associates

According to SANDAG's estimates, the South Suburban MSA will gradually increase its share of total employment in San Diego County, from 6.2 percent in 2000 to 6.7 percent in 2010 to 7.9 in 2020 to 9.2 percent in 2030.

**Table III-4 Employment Growth by Industry, Otay Mesa CPA, 2000 - 2030**

	<b>2000</b>	<b>2010</b>	<b>% Change</b>	<b>2020</b>	<b>% Change</b>	<b>2030</b>	<b>% Change</b>
Agriculture	71	73	2.8%	73	0.0%	73	0.0%
Construction	111	136	22.5%	143	5.1%	221	54.5%
Finance, Insurance & Real Estate	28	548	1857.1%	1,525	178.3%	2,425	59.0%
Government	690	1,715	148.6%	2,728	59.1%	3,433	25.8%
Manufacturing	2,657	2,549	-4.1%	2,574	1.0%	2,708	5.2%
Military	0	0		0		0	
Retail trade	1,183	2,153	82.0%	3,534	64.1%	5,054	43.0%
Self employment, domestic workers	258	729	182.6%	1,325	81.8%	1,891	42.7%
Services	421	4,452	957.5%	9,794	120.0%	16,122	64.6%
Transportation, Comm. & P.Utilities	1,329	2,132	60.4%	3,003	40.9%	4,695	56.3%
Wholesale trade	1,286	2,121	64.9%	3,488	64.5%	5,011	43.7%
<b>Total</b>	<b>8,034</b>	<b>16,608</b>	<b>106.7%</b>	<b>28,187</b>	<b>69.7%</b>	<b>41,633</b>	<b>47.7%</b>

Source: Sandag and Economics Research Associates

Significant growth is projected for the FIRE sector in Otay Mesa CPA, adding 2,397 jobs between 2000 and 2030, representing 7.1 percent of total new jobs in the area. The services sector is also forecasted to grow significantly, adding 15,701 jobs between 2000 and 2030, accounting for 46.7 percent of total employment growth.

Retail trade is projected to add 3,900 new jobs. The wholesale trade is projected to add over 3,700 jobs during the 30-year period; however, its share of total employment in Otay Mesa is projected to decline from 16 percent of total employment 2000 compared to 12 percent in 2030. The government sector is forecasted to add more than 2,700 jobs between 2000 and 2030, while TCPU is projected to add more than 3,300 jobs during the same time period. Manufacturing is only expected to add over 50 net new jobs during the 30-year period.

Table III-4 shows employment growth by industry for Otay Mesa CPA between 2000 and 2030. SANDAG forecasts that new jobs in Otay Mesa may increase from over 8,000 to almost 42,000 between 2000 and 2030, for a CAGR of 5.6 percent, well above the projected South Suburban and countywide projected growth rates. Otay Mesa is forecasted to add approximately 8,600 jobs between 2000 and 2010, 11,600 between 2010 and 2020, and 13,400 between 2020 and 2030.

Table III-5 shows Otay Mesa CPA share of South Suburban MSA's employment growth between 2000 and 2030 for FIRE, manufacturing, wholesale trade, retail trade and services. As shown in the table, Otay Mesa's share of South Suburban's employment growth, while remaining significant, is projected to decline in all major sectors over time, reflecting the growing competitiveness of other employment centers within the South Suburban MSA, such as Chula Vista, East Otay Mesa, and elsewhere.

**Table III-5 Otay Mesa CPA Share of Employment Growth in South Suburban MSA by Major Industrial Sector, 2000 - 2030**

	2000-2010	2010-2020	2020-2030
Finance, Insurance & Real Estate	45.4%	34.0%	31.3%
Manufacturing	(11.3)%	73.5%	48.7%
Wholesale Trade	72.0%	59.0%	55.2%
Retail trade	38.5%	40.7%	33.5%
Services	65.1%	42.0%	37.7%

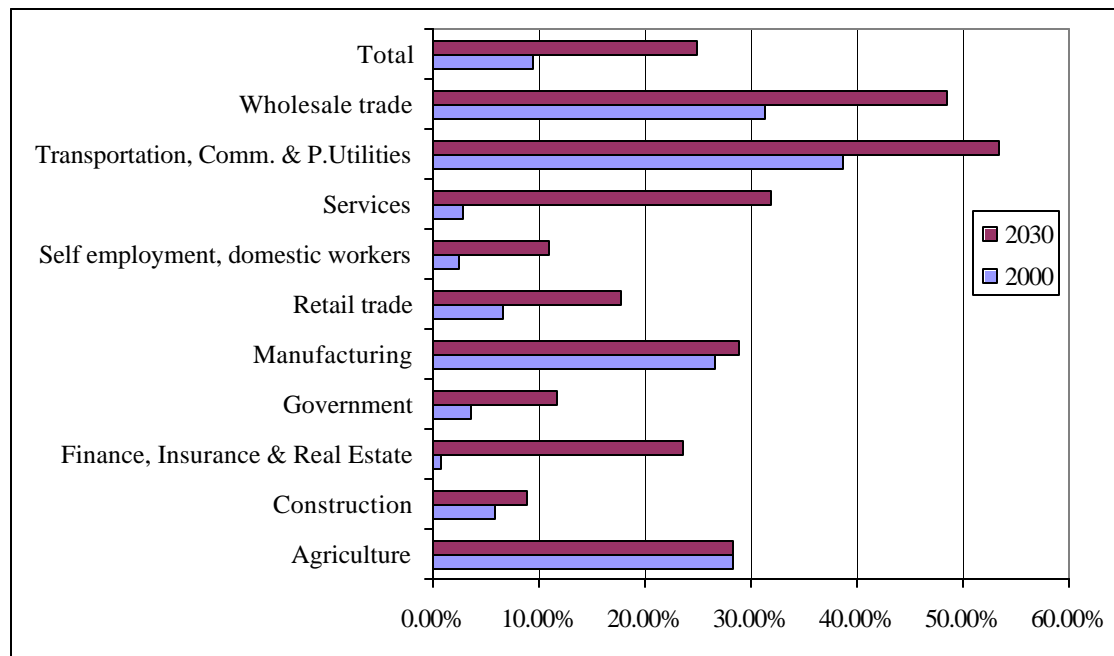
Source: SANDAG and Economics Research Associates

Although Otay Mesa's share of the South Suburban MSA's projected employment growth is expected to subside, employment growth will still be significant and, overall, greater than the South Suburban MSA as a whole. The South Suburban MSA is forecasted to add 81,300 new jobs between 2000 and 2030. The Otay Mesa CPA is forecasted to add 33,600 new jobs, or 41.3 percent of the MSA during the same timeframe. In fact, Otay Mesa is forecasted to add more jobs than the City of Chula Vista, which is forecasted to add 25,700 jobs between 2000 and 2030. These projections are based on current land use policies. If Chula Vista adds more employment lands under its General Plan update, its share of future regional job growth may be greater.

Otay Mesa's share of total employment in the South Suburban MSA is expected to increase from 9.4 percent in 2000 to 24.9 percent by 2030. Likewise, the South Suburban MSA is forecasted to increase its share of total employment in San Diego County from 6.2 percent in 2000 to 9.2 percent in 2030. Again, SANDAG's projections are restricted by current land use policies that eventually limit land use capacity to absorb growth in the long term.

Exhibit III-4 shows Otay Mesa's share of the South Suburban MSA's employment by industry for 2000 and 2030. For all sectors except agriculture, the Otay Mesa CPA is forecasted to increase its share of total South Suburban employment in each industry sector.

**Exhibit III-4 Otay Mesa CPA Share of South Suburban Employment by Industry Sector, 2000 - 2030**



Source: SANDAG and Economics Research Associates

### **Industry Trends**

Given its geographic location, an important share of businesses in Otay Mesa CPA, such as manufacturing, warehousing, distribution, and services is directly related to the border economy.

### **Otay Mesa Industrial Base**

We have utilized data obtained from CoStar to analyze the Otay Mesa industrial base. In 2000, three industry sectors comprised almost 66 percent of total employment in Otay Mesa, with manufacturing representing 33.1 percent of total employment, TCPU representing 16.5 percent and wholesale trade representing 16.0 percent. Retail trade represented 14.7 percent of total employment in Otay Mesa in 2000.

By 2030, however, SANDAG forecasts that manufacturing will decrease its share of total employment to 6.5 percent. Wholesale trade and TCPU are also projected to decrease to 12 percent and 11.3 percent respectively, though absolute employment in these sectors is expected to grow. The largest employer in the area is forecasted to be the services sector, increasing its share of total employment in Otay Mesa from 5.2 percent in 2000 to 38.7 percent by 2030. Even though the FIRE sector is forecasted to grow significantly, it is expected to account for 5.8 percent of total employment in Otay Mesa by 2030.



An analysis of the size and mix of firms and employment in 2004 provides some insight into the traditional sources of demand for commercial real estate uses in Otay Mesa. Table III-6 shows firms and employees in Otay Mesa by major industry sector.

**Table III-6 2004 Firms and Employees in Otay Mesa by Industry Category**

	Share of		Share of	
	Firms	Firms	Employees	Employees
Agricultural Services	1	0.2%	-	0.0%
Services	47	11.1%	355	4.2%
FIRE	15	3.5%	60	0.7%
Retail Trade	27	6.4%	864	10.3%
Wholesale Trade	97	22.8%	1,022	12.2%
Transportation, Warehousing & Public Utilities	135	31.8%	2,228	26.6%
Manufacturing	84	19.8%	3,575	42.7%
Construction	7	1.6%	114	1.4%
Government	1	0.2%	65	0.8%
Unclassified	11	2.6%	91	1.1%
<b>Total</b>	<b>425</b>	<b>100.0%</b>	<b>8,374</b>	<b>100.0%</b>

Source: Costar

The table reveals that the transportation, warehousing and public utilities, manufacturing, and wholesale trade sectors, which drive demand for industrial space, account for approximately 74.4 percent of total firms and 81.5 percent of total employment in Otay Mesa. The services and FIRE sectors, which drive demand for office space, account for only 14.6 percent of firms and 4.9 percent of employment.

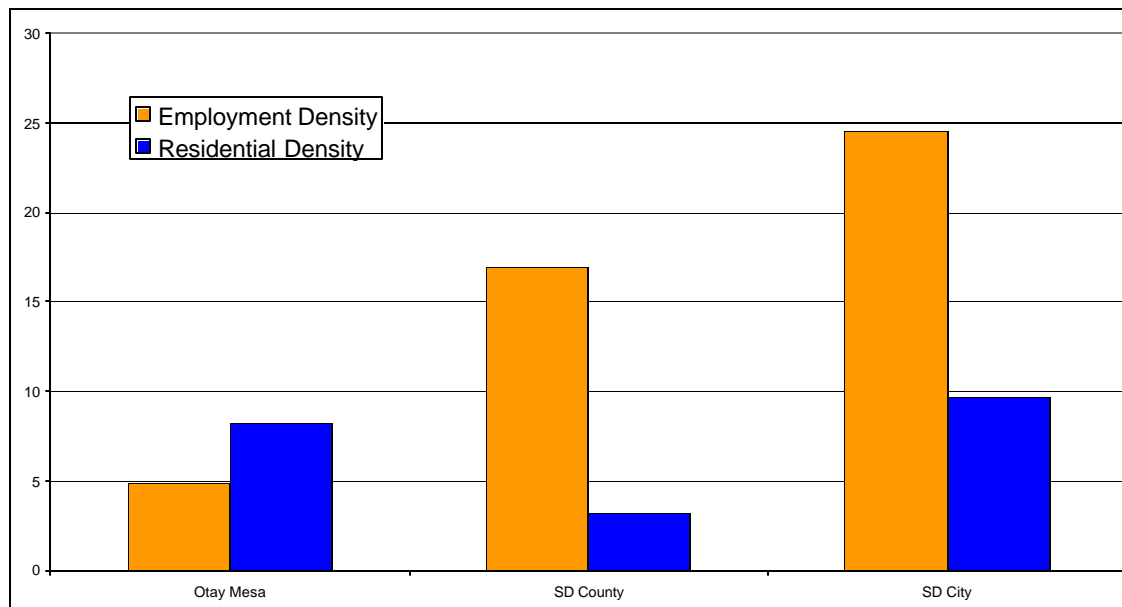
SANDAG's reported composition and changes of the Otay Mesa industry and employment base has strong implications for changes in the type of development anticipated and employment density per acre. SANDAG's 2003 Otay Mesa employment inventory, based on State employment security records (ES202) shows 9,351 workers, of which 2,115 (22.6 percent) were in manufacturing, 1,654 (17.7 percent) were in government, 1,543 (16.5 percent) were in wholesale trade, 1,299 (13.9 percent) were in retail trade, and 1,011 (10.8 percent) were in transportation-utilities-water. Both Costar and ES202 have potential errors due to how the data is collected, which is particularly difficult in Otay Mesa because of manufacturing companies operating warehouse/distribution facilities, and the preponderance of branch locations.

### ***Employment and Residential Density***

Employment and residential density are important because they ultimately drive the pace at which land is absorbed as growth occurs in employment and population.

In 2000, the employment density (civilian employment per developed employment acre, including industrial, retail, office, and schools) in Otay Mesa was almost 3.5 times lower than San Diego County and 5.0 times lower than the City of San Diego, with 4.9 employees per developed employment acre. This suggests that a given increase in commercial employment will result in a greater quantity of commercial land absorption in Otay Mesa versus San Diego County as a whole. In contrast, residential density in Otay Mesa was 2.5 times higher than San Diego County, but lower than the City of San Diego, with 8.2 total housing units per developed residential acre, as shown in Exhibit III-5.

**Exhibit III-5: Land Use Density, 2000**



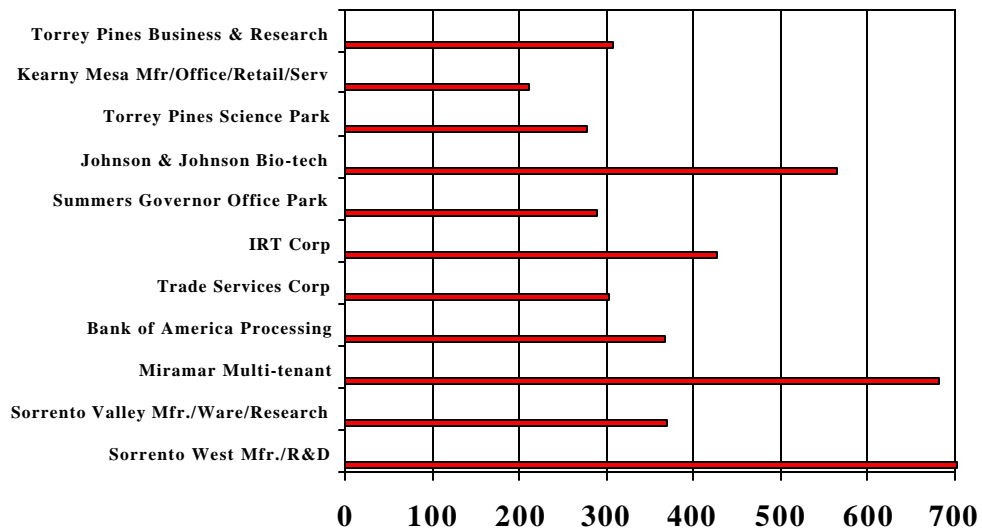
Notes: Civilian employment per developed employment acre (industrial, retail, office, and schools).

Total housing units per developed residential acre.

Source: SANDAG

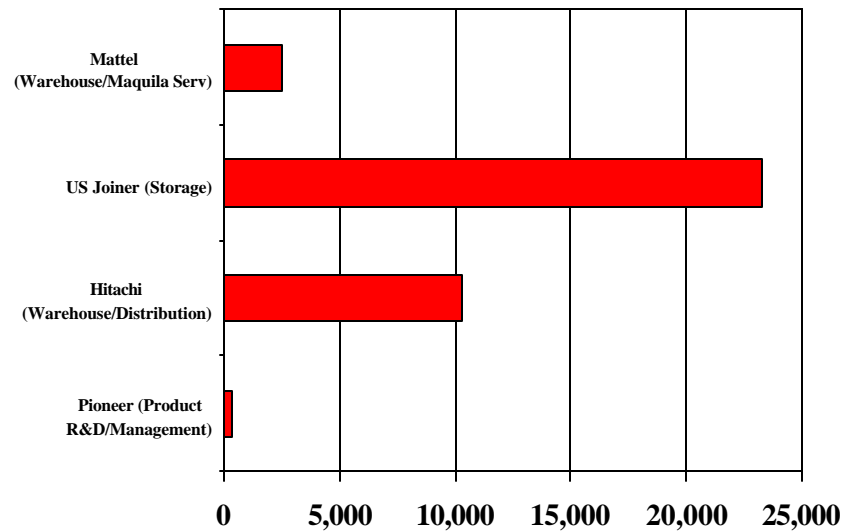
The future industrial profile of Otay Mesa will have a significant influence on land demand. As shown in exhibit III-6 and III-7, the amount of building space per worker varies considerably, depending on the type of industrial building and its function, with services generally requiring less much less space per worker than warehouse/distribution.

**Exhibit III-6**  
**SQUARE FEET PER WORKER IN SELECTED INDUSTRIAL BUILDINGS**



*Source: SANDAG, San Diego Traffic Generators, 2002; and Economics Research Associates*

**Exhibit III-7**  
**SQUARE FEET PER WORKER IN SELECTED OTAY MESA BUILDINGS**



Source: Respective businesses, and Economics Research Associates

### ***Retail Sales***

Table III-7 shows annual taxable sales in San Diego, Otay Mesa, and San Ysidro from 1995 to 1999 (the last year that the City of San Diego collected and reported this data for this specific area). According to the State of California Franchise Tax Board, taxable retail sales in Otay Mesa-San Ysidro equaled almost \$664 million in 1999. From 1995 to 1999, taxable sales realized in Otay Mesa-San Ysidro represented approximately 2 percent of the total for San Diego County. For all years shown, General Retail was the largest source of taxable sales in Otay Mesa-San Ysidro, comprising 44 percent of taxable sales in 1999, much higher than the 29 percent General Retail comprises countywide. The second largest source was Transportation, which accounted for 28 percent of taxable sales in Otay Mesa-San Ysidro, compared to 18

percent countywide. Business-to-business sales comprised almost 9 percent of total taxable sales in Otay Mesa-San Ysidro, proportionately higher than the 6 percent that business-to-business sales comprised countywide.

Overall, taxable sales in Otay Mesa-San Ysidro grew by a 9 percent CAGR, well in excess of inflation, and slightly higher than the 8 percent countywide growth rate. Taxable sales for food products grew approximately twice as fast in Otay Mesa-San Ysidro than it did countywide.

Business-to-business taxable sales grew 50 percent faster in Otay Mesa-San Ysidro. Growth in sales tax associated with construction, which varies more significantly each year than other categories, kept pace or exceeded the countywide growth rate from 1996 through 1998, but declined by 15 percent in 1999.

### ***Employment and Land Planning***

Even though San Diego County's economy is more diversified than a decade ago, its major economic contributors are still manufacturing, business services, the military, and tourism. Trade volume has grown substantially during the decade, mostly related to cross-border trade with Mexico.

The Otay Mesa CPA is expected to receive significant employment growth during the next 30 years, with five times more jobs in 2030 than in 2000. FIRE, services, wholesale, retail trade and TCPU are the highest growing sectors. Otay Mesa is forecasted to receive approximately 41.3 percent of all jobs created in the South Suburban MSA between 2000 and 2030. By 2030, its share of total employment in the South Suburban MSA is projected to increase to 24.9 percent in 2030, compared to 9.4 percent in 2000.

The industrial profile of this future employment is important for planning land use, since different types of industrial uses and functions require different amounts of building space and land. If the future Otay Mesa economy is much more service-oriented, the amount of employment space and land required per 1,000 employees will be significantly less. If the future Otay Mesa economy is remains mostly warehouse/distribution and manufacturing, the amount of land required per 1,000 employees will be similar to today, or, perhaps, modestly less assuming some gains in productivity.

SANDAG forecasts that the manufacturing sector, however, will decline regionally, and will represent a significantly smaller share of total employment Mesa, only 6.5 percent of total employment in 2030, compared to 33.1 percent in 2000. In contrast, the services sector is



forecasted to account for 38.7 percent of total employment in Otay Mesa in 2030, adding more than 15,700 jobs during the 30-year period, compared to 5.2 percent in 2000.

Job growth in Otay Mesa will require housing within commuting distance. Other South Bay locations, such as in Chula Vista, future housing already allowed in Otay Mesa, some areas of central and eastern San Diego County, and perhaps Tijuana can provide some of this housing within a reasonable commuting distance. Housing affordability, however, remains one of the most difficult problems for the region, with diminishing land supply and double-digit appreciation in recent years, exacerbating the supply and demand imbalance.

**Table III-7 San Diego and Otay Mesa/San Ysidro Annual Taxable Sales, 1995 - 1999**

<i>San Diego County</i>						CAGR
Taxable Sales	1995	1996	1997	1998	1999	1995-1999
General Retail	\$ 7,508,158,000	\$ 7,373,549,000	\$ 7,810,111,000	\$ 8,538,436,000	\$ 9,413,178,000	6%
Food Products	\$ 3,610,228,000	\$ 3,781,275,000	\$ 3,860,670,000	\$ 4,090,281,000	\$ 4,398,322,000	5%
Construction	\$ 1,091,926,000	\$ 1,204,684,000	\$ 1,466,965,000	\$ 1,671,507,000	\$ 1,882,514,000	15%
Transportation	\$ 4,278,825,000	\$ 4,623,162,000	\$ 5,398,902,000	\$ 5,233,584,000	\$ 6,101,461,000	9%
Business to Business	\$ 1,270,837,000	\$ 1,373,745,000	\$ 1,538,544,000	\$ 1,703,325,000	\$ 1,863,511,000	10%
Miscellaneous	\$ 5,981,923,000	\$ 6,623,435,000	\$ 7,467,671,000	\$ 7,976,153,000	\$ 8,653,211,000	10%
Total	\$23,741,897,000	\$24,979,850,000	\$ 27,542,863,000	\$ 29,213,286,000	\$32,312,197,000	8%

**% of Total**

General Retail	31.6%	29.5%	28.4%	29.2%	29.1%
Food Products	15.2%	15.1%	14.0%	14.0%	13.6%
Construction	4.6%	4.8%	5.3%	5.7%	5.8%
Transportation	18.0%	18.5%	19.6%	17.9%	18.9%
Business to Business	5.4%	5.5%	5.6%	5.8%	5.8%
Miscellaneous	25.2%	26.5%	27.1%	27.3%	26.8%

<i>Otay Mesa/San Ysidro</i>						CAGR
Taxable Sales	1995	1996	1997	1998	1999	1995-1999
General Retail	\$ 211,678,000	\$ 238,923,700	\$ 264,279,500	\$ 279,367,800	\$ 290,060,000	8%
Food Products	64,678,200	67,134,900	74,503,300	88,977,400	95,573,500	10%
Construction	31,643,100	33,537,700	35,379,700	37,959,600	32,329,600	1%
Transportation	125,049,400	140,401,600	147,552,700	177,843,800	187,052,300	11%
Business to Business	33,550,000	45,333,800	46,712,600	53,220,200	58,646,400	15%
Miscellaneous	198,100	136,600	70,200	75,500	37,600	-34%
Total	466,796,800	525,468,300	568,498,000	637,444,300	663,699,400	9%

**% of Total**

General Retail	45.3%	45.5%	46.5%	43.8%	43.7%
Food Products	13.9%	12.8%	13.1%	14.0%	14.4%
Construction	6.8%	6.4%	6.2%	6.0%	4.9%
Transportation	26.8%	26.7%	26.0%	27.9%	28.2%
Business to Business	7.2%	8.6%	8.2%	8.3%	8.8%
Miscellaneous	0.0%	0.0%	0.0%	0.0%	0.0%

**Otay Mesa/San Ysidro Taxable Sales as  
a % of County Taxable Sales**

General Retail	2.8%	3.2%	3.4%	3.3%	3.1%
Food Products	1.8%	1.8%	1.9%	2.2%	2.2%
Construction	2.9%	2.8%	2.4%	2.3%	1.7%
Transportation	2.9%	3.0%	2.7%	3.4%	3.1%
Business to Business	2.6%	3.3%	3.0%	3.1%	3.1%
Miscellaneous	0.0%	0.0%	0.0%	0.0%	0.0%
Total	2.0%	2.1%	2.1%	2.2%	2.1%

Source: City of San Diego and State of California Franchise Tax Board



## **IV. Mexican Trade**

### ***Border-Crossing Trends and Characteristics***

#### **Pedestrian Crossing**

According to the US Department of Transportation, 2001 was the year with the most incoming pedestrian crossings at San Ysidro and Otay Mesa. Crossings at San Ysidro grew from 7.5 million in 2000 to 11.4 million in 2001. Pedestrian crossings in Otay Mesa grew from 648,000 in 2000 to 1.0 million in 2001. Exhibit IV-1 shows pedestrian crossings in San Ysidro and Otay Mesa between 1997 and 2003.

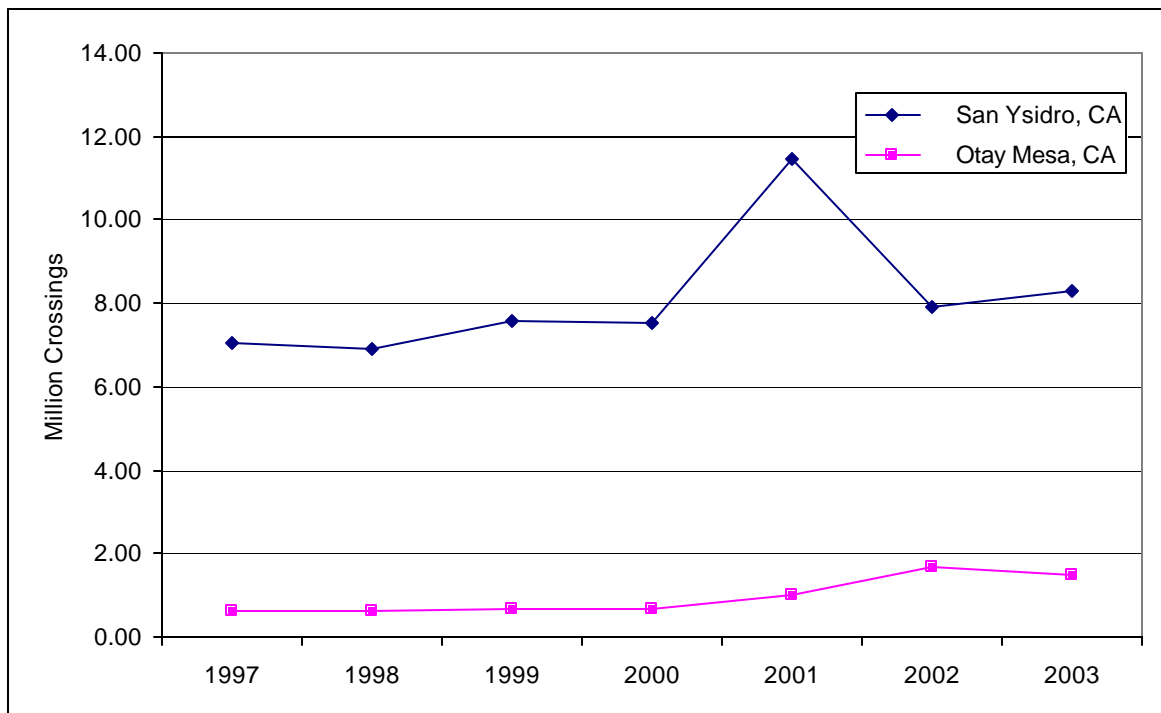
In 2003, 3.0 percent of all pedestrian crossings into the United States passed through Otay Mesa, increasing from 1.4 percent in 1997. According to the United States Customs service, San Ysidro and Otay Mesa together had more than 9.7 million northbound pedestrian crossings in 2003, which represented 20.1 percent of all northbound pedestrian crossings to the United States, increasing from 17.5 percent in 1997.

Otay Mesa also increased its share of total pedestrian crossings into the California, from 3.5 percent in 1997 to 8.1 percent in 2003. San Ysidro and Otay Mesa combined, increased their share of total crossings into California, from 43.7 percent in 1997 to 53.7 percent in 2003.

#### **Private Vehicle Crossings**

Incoming personal vehicle crossings at Otay Mesa increased steadily between 1997 and 2000, dropped 18.1 percent in 2001 (due primarily to the impacts of 9/11), recovered in 2002 and surpassed 2000 crossings in 2003, reaching 4.9 million. In San Ysidro, incoming personal vehicle crossings increased between 1997 and 1999, dropped 7.6 percent in 2000, recovered in 2001 and increased in 2002 and 2003, reaching 17.4 million. Interestingly, in 2000, while incoming personal vehicle crossings increased by 8.1 percent in Otay Mesa, crossings decreased by 7.6 percent in San Ysidro. Likewise, in 2001, while incoming personal vehicle crossings increased by 6.3 percent in San Ysidro, crossings decreased by 18.1 percent in Otay Mesa, as shown in Exhibit IV-2.

Northbound personal vehicle crossings in Otay Mesa grew from 3.8 million in 1997 to 4.9 million in 2003 for a 4.4 percent CAGR. During the same time period, northbound personal vehicle crossings at San Ysidro grew from 13.2 million in 1997 to 17.4 million in 2003, for a 4.7 percent CAGR.

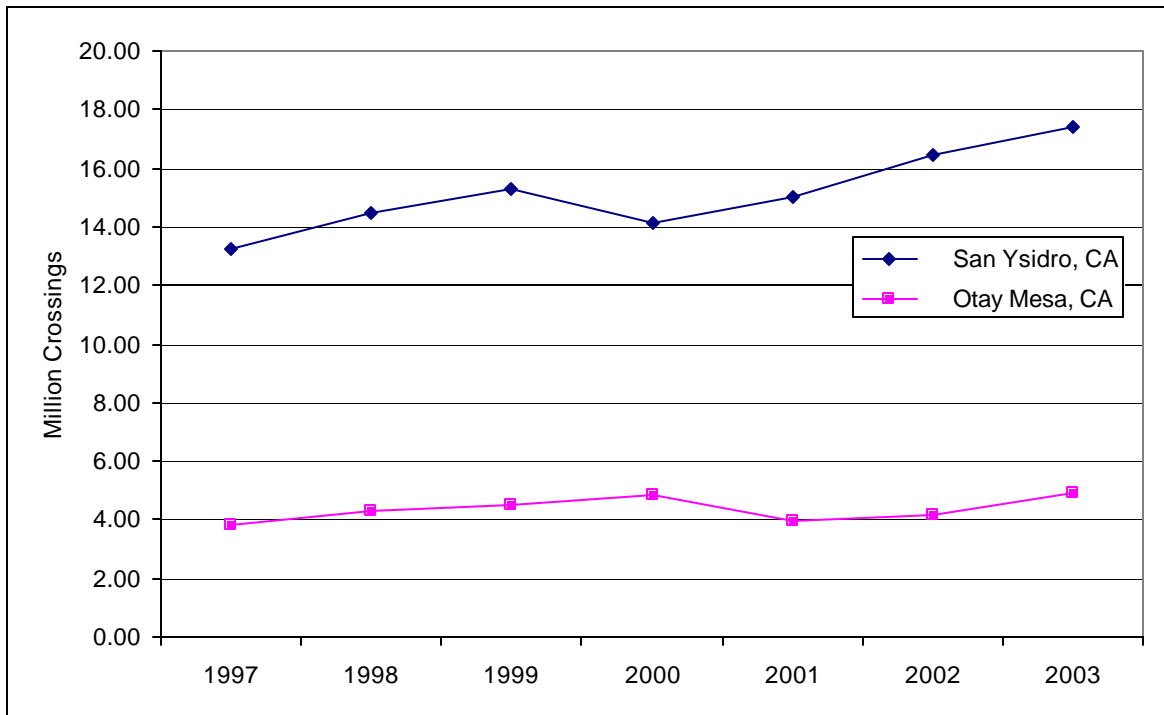
**Exhibit IV-1 Otay Mesa and San Ysidro Incoming Pedestrian Border Crossings**

Source: U.S. DOT, BTS based on data from US Customs Service, Mission Support Services, Office of Field Operations, Operations Management Database

Otay Mesa represented 4.8 percent of all private vehicle crossings into the United States in 1997, increasing to 5.6 percent in 2003, while San Ysidro's share grew from 16.5 percent in 1997 to 19.8 percent in 2003. Considering San Ysidro and Otay Mesa together, they represented 25.3 percent of all private vehicle crossings into the United States in 2003.

### Truck Crossings

According to the US Department of Transportation, trucks crossing at San Ysidro and Otay Mesa grew by more than 129,000 between 1997 and 2003, from over 567,700 in 1997 to almost 697,200 in 2003, for a CAGR of 3.5 percent. However, truck crossings decreased by more than 34,000 between 2002 and 2003, a down period for maquiladoras, for a 4.6 percent decrease.

**Exhibit IV-2 Otay Mesa and San Ysidro Incoming Personal Vehicle Crossings**

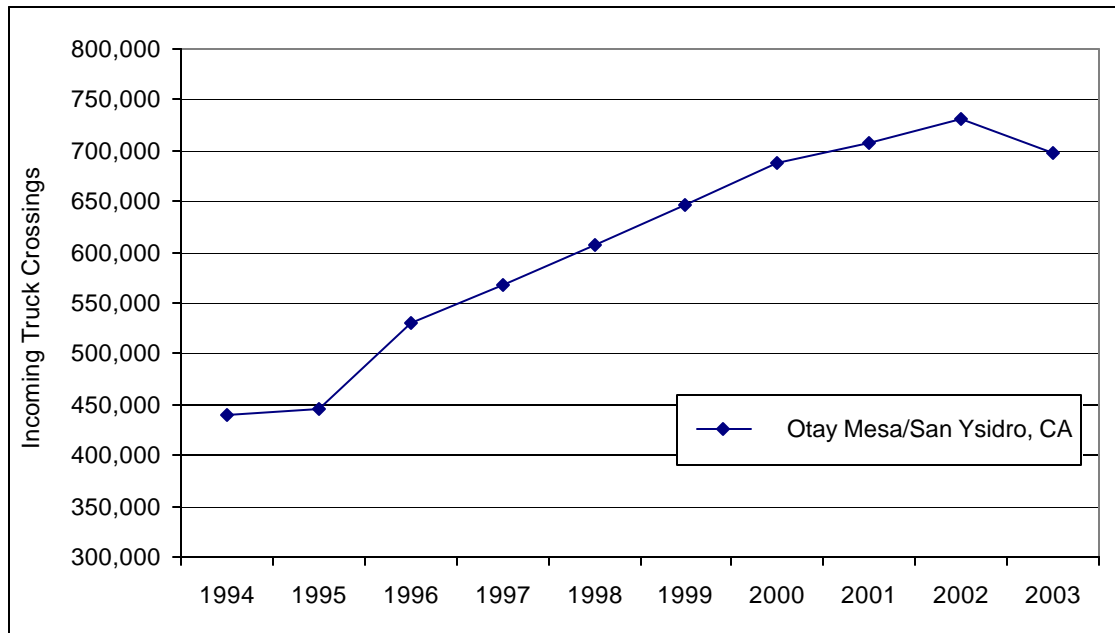
Source: U.S. DOT, BTS based on data from US Customs Service, Mission Support Services, Office of Field Operations, Operations Management Database

Exhibit IV-3 shows truck crossings at San Ysidro and Otay Mesa between 1994 and 2003. Department of Transportation figures' does not distinguish between San Ysidro and Otay border crossings. However, since 1998, all truck traffic crosses through Otay Mesa. Truck crossings started to decline in late 2002 as maquiladora activity retrenched due to the U.S. recession.

Truck crossings at San Ysidro and Otay Mesa as a percentage of total truck crossings in the United States increased from 15.4 percent in 1997 to 16.5 percent in 2001, remained about the same in 2002 and 2003.

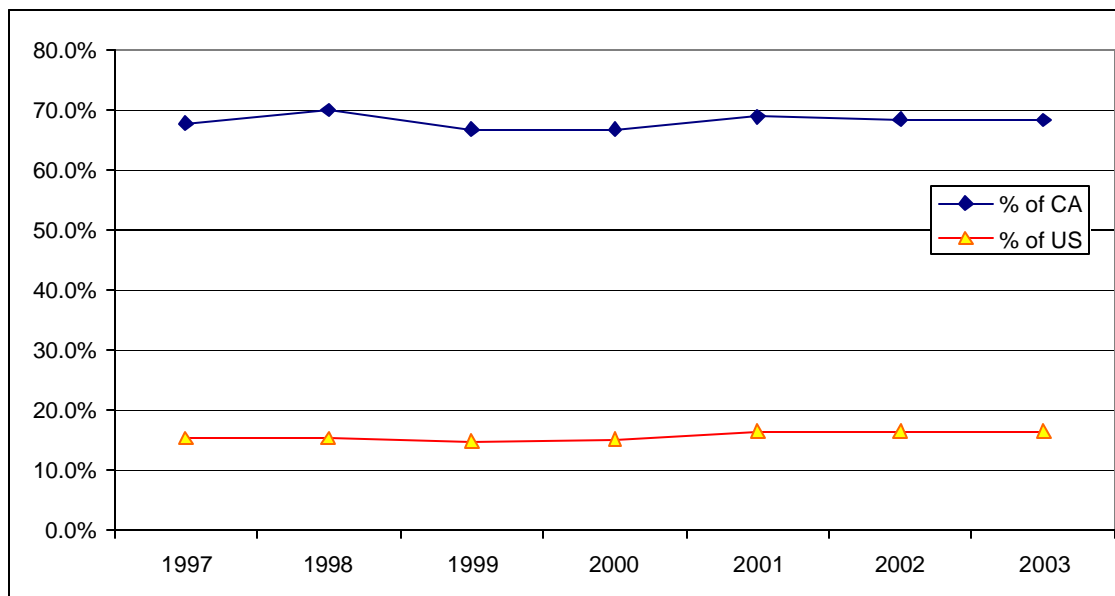
San Ysidro and Otay Mesa represented 67.8 percent of total truck crossings into California in 1997 and 68.4 percent in 2003. Exhibit IV-4 shows northbound truck crossings as a percentage of total truck crossings in the United States and California between 1997 and 2003 for San Ysidro and Otay Mesa. According to SourcePoint, 83 percent of northbound truck traffic is heading towards destinations outside San Diego County.

**Exhibit IV-3 Otay Mesa and San Ysidro Northbound Truck Crossings**



Source: U.S. DOT, BTS based on data from US Customs Service, Mission Support Services, Office of Field Operations, Operations Management Database

**Exhibit IV-4 Otay Mesa and San Ysidro Share of California and United States Northbound Truck Crossings**



Source: U.S. DOT, BTS based on data from US Customs Service, Mission Support Services, Office of Field Operations, Operations Management Database

## Cross-Border Trade Data

Commercial trade at the Otay Mesa border crossing began in 1997, replacing the majority of trade through the San Ysidro border crossing. According to the US Department of Transportation's bureau of transportation statistics, the total estimated value of trade through San Ysidro for all surface modes of transportation, decreased from \$10.5 billion in 1996 to \$846.1 million in 1997 to \$43.4 million in 1998. Total trade value at San Ysidro was \$65.5 million in 2002.

For Otay Mesa, the total estimated value of trade for all surface modes of transportation in 1997 was \$12.3 billion, increasing to \$14.7 billion in 1998 and \$15.6 billion in 1999. In 2002, total trade value at Otay Mesa was \$20.3 billion. Total estimated value of trade includes exports and imports to and from Mexico.

Table IV-1 shows total trade volumes for all surface modes of transportation, exports and imports to and from Mexico for San Ysidro, Otay Mesa and Tecate between 1997 and 2002.

**Table IV-1 Trade Value for All Surface Modes of Transportation, Exports and Imports to and from Mexico for San Ysidro, Otay Mesa and Tecate between 1997 and 2002**

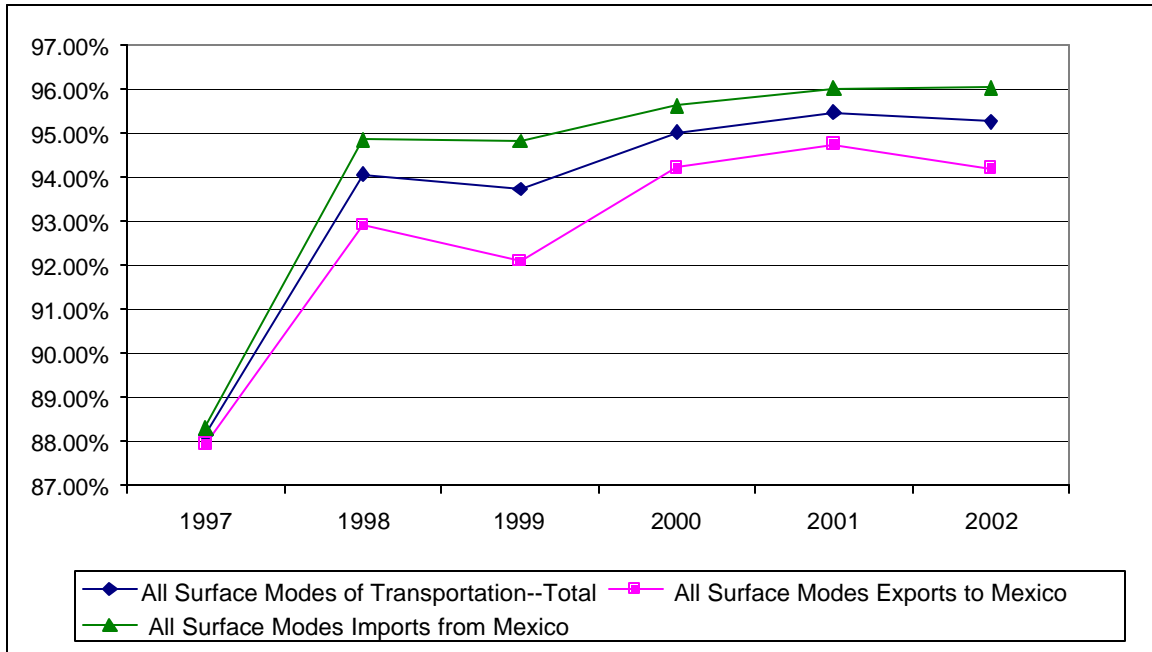
<b>San Ysidro</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
All Surface Modes of Transportation-Total	\$ 846.1	\$ 43.4	\$ 61.6	\$ 66.0	\$ 71.6	\$ 65.5
All Surface Modes Exports to Mexico	\$ 348.1	\$ 43.1	\$ 60.5	\$ 64.9	\$ 71.3	\$ 65.3
All Surface Modes Imports from Mexico	\$ 498.0	\$ 0.3	\$ 1.2	\$ 1.0	\$ 0.2	\$ 0.2
<b>Otay Mesa</b>						
All Surface Modes of Transportation-Total	\$ 12,304.3	\$ 14,708.9	\$ 15,626.9	\$ 18,773.5	\$ 19,401.0	\$ 20,386.0
All Surface Modes Exports to Mexico	\$ 5,169.7	\$ 5,988.8	\$ 6,166.8	\$ 8,113.3	\$ 8,231.6	\$ 8,554.7
All Surface Modes Imports from Mexico	\$ 7,134.6	\$ 8,720.1	\$ 9,460.1	\$ 10,660.2	\$ 11,169.3	\$ 11,831.3
<b>Tecate</b>						
All Surface Modes of Transportation-Total	\$ 807.4	\$ 886.5	\$ 985.7	\$ 921.1	\$ 850.3	\$ 950.2
All Surface Modes Exports to Mexico	\$ 361.3	\$ 413.9	\$ 468.8	\$ 433.6	\$ 385.9	\$ 461.4
All Surface Modes Imports from Mexico	\$ 446.1	\$ 472.7	\$ 517.0	\$ 487.6	\$ 464.3	\$ 488.8

Note: All Figures in Million Dollars

Source: US Department of Transportation, Bureau of Transportation Statistics, Transborder Surface Freight Data

Exhibit IV-5 shows Otay Mesa border crossings' share of total trade value for San Ysidro, Otay Mesa and Tecate combined between 1997 and 2002.

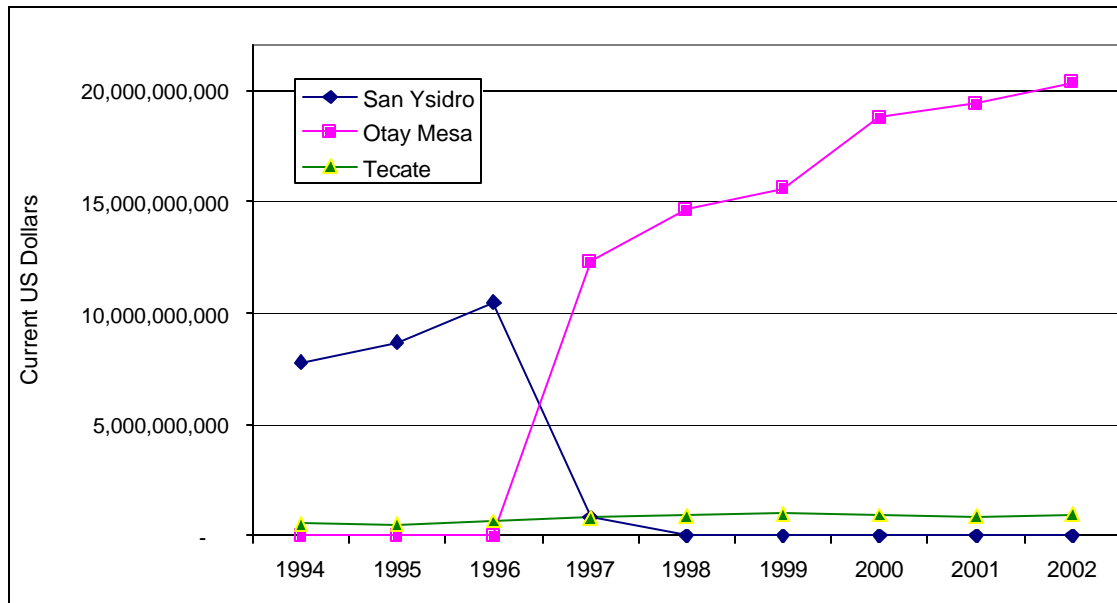
**Exhibit IV-5 Otay Mesa Share of San Ysidro, Otay Mesa and Tecate Trade Value**



Source: US Department of Transportation, Bureau of Transportation Statistics, Transborder Surface Freight Data

More than 99.5 percent of all trade through San Ysidro, Otay Mesa and Tecate border crossings are truck related, except for San Ysidro after 1998. Exhibit IV-6 shows trade values (imports and exports) of truck related crossings for San Ysidro, Otay Mesa and Tecate between 1994 and 2002.

**Exhibit IV-6 San Ysidro, Otay Mesa and Tecate Truck Crossings Value of Trade**



Source: US Department of Transportation, Bureau of Transportation Statistics, Transborder Surface Freight Data

## ***Tijuana Industry and Employment***

### **Industry Characteristics and Trends**

Tijuana opened economically to new market opportunities before the rest of Mexico, with its Free Zone designation in the 1980s. This condition changed the processing industry characteristics from a crafts and food & beverage production targeted to tourism and local markets, to an industry focused on world markets. During this time, agriculture employment numbers in the region fell dramatically, partially due to the need of agricultural workers in neighboring California.

The economic activities performed in the City of Tijuana have shifted over time, from a commerce and services-based economy before 1970 to an industrial-based economy today. Before 1970, almost 60 percent of the Economically Active Population (EAP) was in the commerce and service sectors, although around 23 percent was already employed in the manufacturing sector.

The spatial distribution of economic activities in Tijuana is very distinct. The central zone and adjacent Zona Rio have served the tourism and service sectors since the city's founding. As economic changes pushed for industrial growth in the city, the Programs of Parks and Industrial Cities provided new infrastructure capacity to serve the maquila industry. Most service activities

(tourism and commerce) in Tijuana gather around the traditional central zone. Tijuana's industrialization, however, is gradually and significantly altering the city.

In 2000, there were 15,867 establishments in the commerce sector, of which 15.3 percent were grocery stores, 10.5 percent variety and candy shops, 7.0 percent clothing and shoe stores, and 6.4 percent pharmacies and drug stores.

The maquiladora industry consolidated during this timeframe and reshaped the services sector as well. Commerce activities as a percentage of the Gross Domestic Product decreased, proving that the presence of industrial activities in Tijuana in the context of Southern California's economy shifted the city's economic base. Today, Tijuana's economy is increasingly linked to foreign markets.

The growth of the maquiladora industry can be appreciated through employment trends, as it became the largest employment sector in the region. In 1975, 7,834 people were employed in 99 plants. By April 2004, there were 150,815 workers in 571 plants. In 1975, the average number of workers per plant stood at 79. In 2004, there are 264 employees per plant.

According to INEGI and the Instituto Mexicano del Seguro Social (IMSS), 21,839 of the 24,838 new jobs generated in the state of Baja California during the last three years were directly associated to the maquila, representing almost 88 percent of total new employment in the state.

The maquiladora industry has represented 46 percent of total formal employment (tax payers, included in IMSS) in Tijuana in the last three years. This percentage stood at 56 percent before the recession in January 2001. For Baja California, the percentage of total employment occupied in the maquiladora industry has steadily decreased from 43 percent in January 2001 to 38 percent in January 2004.

In March 2004, the maquiladora industry employed 147,360 people, while the commerce sector employed 51,344 people, and the services sector employed 52,790 people. Maquiladoras support 77.6 percent of manufacturing jobs, 46.7 percent of machinery and equipment jobs, 8.1 percent of wood products jobs, and 8 percent of food, beverages and tobacco jobs.

The informal economy also plays a significant role in Tijuana. Approximately, 56 percent of the informal economy is in the central zone, 13 percent in La Presa, 11 percent in Otay, 11 percent in La Mesa, and 8.9 percent in San Antonio de los Buenos. Additionally, movable "swap-meet" types of markets are set up in a total of 142 places per week, with the heaviest concentration in La Presa, which has 57. San Antonio de los Buenos has 32; La Mesa, 22; Mesa de Otay, 14; the



Central Zone, 11; and Playas de Tijuana, 6. These swap-meet places sell clothing, food and vehicle accessories, among other goods and services.

### **Growth Industries**

The presidential change in 2000 negatively affected the maquiladora industry by excessively controlling the foreign exchange and increasing taxation on maquilas, including new taxes on 3<sup>rd</sup> country raw materials. Today, Tijuana is experiencing a significant recovery after the 2001-2003 recession. New employment opportunities in the second quarter of 2004 signal a recovery period in the local economy, though employment has yet to match the high levels experienced before the recession.

Besides the U.S. recession, the introduction of China to the World Trade Organization (WTO) greatly affected Tijuana's economy, decreasing investments to the region and causing some firms to depart. Increased competition compelled the maquila industry to restructure operations and manufacture higher value-added and larger products. Plants in Tijuana are shifting away from labor-intensive to more capital-intensive products. Additionally, Tijuana's geographic competitive advantage positions it for increased production in markets where "just-in-time" products are crucial. Tijuana also competes well in the manufacture of products that are bulkier and more difficult to transport.

One of the industries with higher growth is the electronics industry, directly associated with higher consumption from the North American market. According to the Secretaria de Desarrollo Economico de Tijuana (SEDETI), companies such as JVC, Plantronics, Panasonic and Kyocera are in a hiring mode to cope with production demands. Other important companies include Sony, Samsung and Sanyo.

The health products industry in Tijuana has also experienced growth and is expected to follow this trend. War supplies and the aging population in the United States are expected to fuel this industry in years to come.

Besides health industry products, medical service providers in Tijuana, who are more affordable than U.S. counterparts, are in high demand from both Mexican and American customers, given their proximity to the border.

The automotive industry has received a strong boost through the introduction of Toyota in Tijuana, strengthening the sector's role, started with Hyundai's plant. The auto parts industry is also expected to grow with the introduction of Toyota. In fact, at least two suppliers will establish operations in Tijuana to service Toyota's plant operations.

Currently, Ciudad Juarez is considered the automotive cluster in northern Mexico, with most operations coming from U.S. manufacturers. Tijuana, in this respect, aspires to become the automotive center for Asian car manufacturers that serve the U.S. market, particularly California and the western United States. The new Toyota plant in eastern Tijuana has created great expectation in attracting more Asian automobile manufacturers and their suppliers to the region. According to DEITAC, at least two other auto manufacturers have shown interest in Tijuana.

The tourism industry is also expected to grow, as Tijuana consolidates its position as the country's 4th largest city, attracting more business travelers from within Mexico and abroad. Tijuana should also continue as a viable tourist destination for San Diego travelers, ensuring a safe and joyful experience south of the border.

### **Major Employers**

Table IV-2 shows the largest maquila employers as of December 2003.

Given the nature of their business, maquiladora plants employ the most people in Tijuana. According to December 2003 figures, 22 companies accounted for more than 30 percent of all maquiladora employment in Tijuana. These figures obviously vary month-to-month depending on current economic factors. Given more positive economic conditions in 2004, figures in the table should be slightly higher than current employment figures in these companies. In fact, between January and April 2004, the maquiladora industry in Tijuana has added 7,000 new jobs.

### **NAFTA related Industries and Maquiladora Trends**

The most important economic driver in Tijuana is the maquiladora industry. As of April 2004, there were 150,815 employees and 571 plants in the maquiladora industry.

During the 1990's, Tijuana almost doubled the number of maquiladoras, from 388 in January of 1990 to 742 in December of 1999, adding 354 new plants during the 10-year period. Employment also grew exponentially, from 54,674 in January of 1990 to 165,696 in December of 1999, adding 111,022 employees to the maquiladora workforce.

**Table IV-2 Tijuana Largest Maquila Employers in 2003**

<b>Name</b>	<b>Employees</b>	<b>Total Plant Square Footage</b>	<b>Number of Factories</b>	<b>Employees/1,000 SF</b>
Sony de Tijuana Este	4,500	500,000	1	111.1
Matsushita Television and Network Systems	1,080	400,000	3	370.4
Hitachi Consumer Products de Mexico	3,990	175,000	3	43.9
Samsung Mexicana	3,600	1,800,000	3	500.0
Sistemas Medicos Alaris	3,100	15,000	2	4.8
Mabamex	3,000	322,800	1	107.6
Sanyo Manufacturing	2,730	3,000,000	5	1,098.9
Tyco Health Care	2,400	120,000	1	50.0
Douglas Furniture Mexicana	2,200	400,000	2	181.8
Pacific Device de Mexico	2,075	150,000	3	72.3
Phillips Lighting Electronics de Mexico	1,900	160,000	2	84.2
Plamex	1,900	260,000	2	136.8
Especialidades Medicas Kenmex	1,800	200,000	1	111.1
Rectificadores Internacionales	1,700	250,000	1	147.1
JVC Industrial de Mexico	1,650	300,000	1	181.8
Robinson & Robinson	1,480	130,000	1	87.8
Industrias Electronicas Pacifico	1,430	110,000	1	76.9
Hyundai Translead de Mexico	1,235	800,000	2	647.8
Pionner Speakers	1,000	350,000	2	350.0
Medtronic	1,000	110,000	1	110.0
Formosa Prosonic Mexico	1,000	150,000	1	150.0
Avery Deninson Office Products de Mexico	900	600,000	1	666.7
<b>Total</b>	<b>45,670</b>	<b>10,302,800</b>	<b>40</b>	<b>225.6</b>

Source: CENDII-DEITAC, December 2003

### **Maquiladora Plants in Tijuana**

The growth of the maquiladora industry in Tijuana follows a similar trend than Baja California and Mexico, as shown in Exhibit IV-7. Between January 1995 and January 2001, Mexico increased from 2,082 to 3,713 plants, adding 1,631 plants during the 6-year period for a 10.1 percent compounded annual growth rate. The state of Baja California added 553 plants during the same timeframe, from 727 to 1,280 for a 9.8 percent CAGR. Tijuana, in turn, added 353 plants, from 466 to 819 for a 9.8 percent CAGR. The 353 new plants in Tijuana represented 63.8

percent of total new plants in Baja California and 21.6 percent of new plants in Mexico. New plants in Baja California represented 33.9 percent of total plants in Mexico during this time.

Exhibit IV-8 shows variations of total plants for Tijuana and Baja California with respect to Mexico between January 1990 and January 2004. As shown in the Exhibit, Tijuana's share of total plants in Baja California has remained stable through time, ranging between 64 and 66 percent. Conversely, Baja California's percentage of total plants in Mexico has decreased from 37.5 percent in 1990 to 30.9 percent in 2004, as well as Tijuana's percentage of total plants in Mexico, from 24.3 percent to 20.2 percent during the same timeframe.

Between January 1990 and 1994, Tijuana added 156 plants to the city's production base, from 388 to 544 for an 8.8 compounded annual growth rate. The introduction of the North American Free Trade Agreement in January of 1994 placed Tijuana in a privileged position to attract larger amounts of foreign investment, given its geographic proximity to the United States and particularly California. The first effect, however, was the reduction of plants in the city, eliminating non-competitive firms in 1995. The recovery started in 1996, and between January 1997 and 2001, Tijuana added 256 plants, from 563 to 819 for a 9.8 percent compounded annual growth rate.

The US recession, the introduction of China to the World Trade Organization (WTO), and the 9/11 terrorist attacks stopped new flows of investment to the region and decreased maquiladora production in Tijuana. Several firms already established in Tijuana moved to China in search for lower cost labor during this time.

Between January 2001 and January 2002, 145 plants in Tijuana closed operations and Tijuana lost approximately 18 percent of its production base. Of the 145 plants lost, 114 occurred between September 2001 and January 2002, compared to 31 between January and September 2001. Additionally, of the 83 plants lost between January 2002 and 2003, 79 closed between January and April 2002. In total, 193 plants closed during the 7-month period between September 2001 and April 2002.

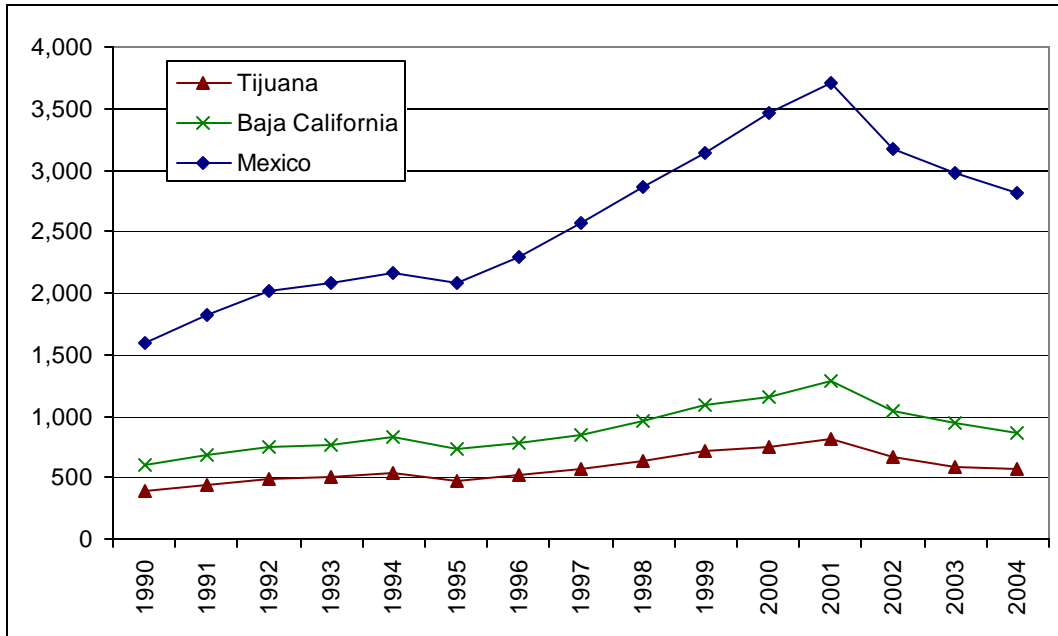
By January 2004, there were 566 plants in Tijuana, a decrease of 253 plants compared to 2001 figures. In fact, plants in Tijuana in January 2004 were almost the same as the number of plants in January of 1994, the date in which NAFTA was introduced.

Exhibit IV-9 shows plants in Tijuana as of January of every year between 1990 and 2004.

Between January and August 2003, Tijuana closed 46 plants, reaching 545 plants and representing its lowest point, reflecting figures registered in January 1994. Since then, Tijuana

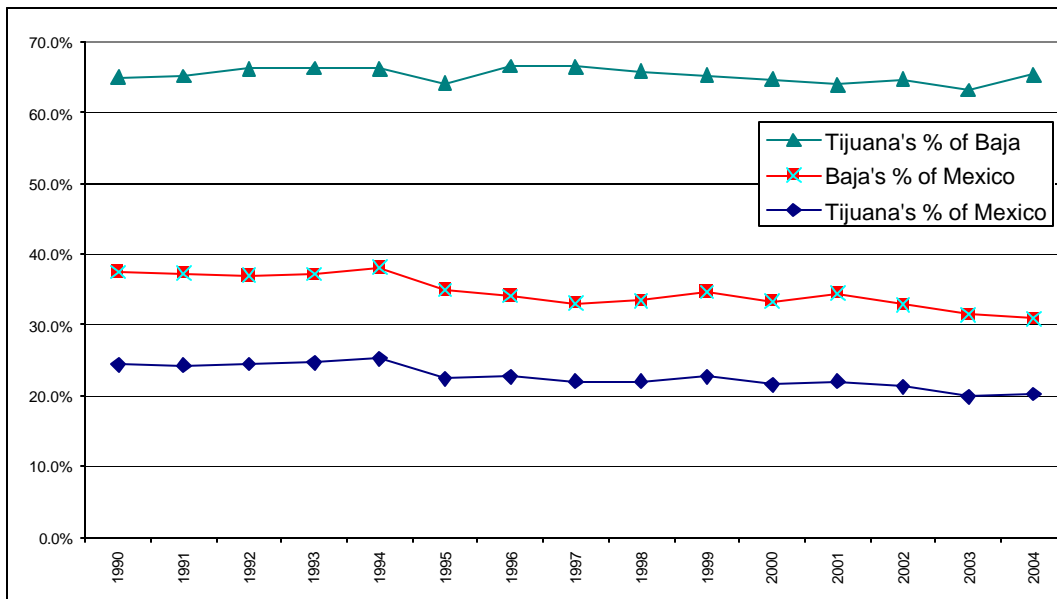
has shown an impressive recovery, adding more than 26 plants between August 2003 and April 2004.

**Exhibit IV-7 Maquiladora Plants in Mexico, Baja California and Tijuana**

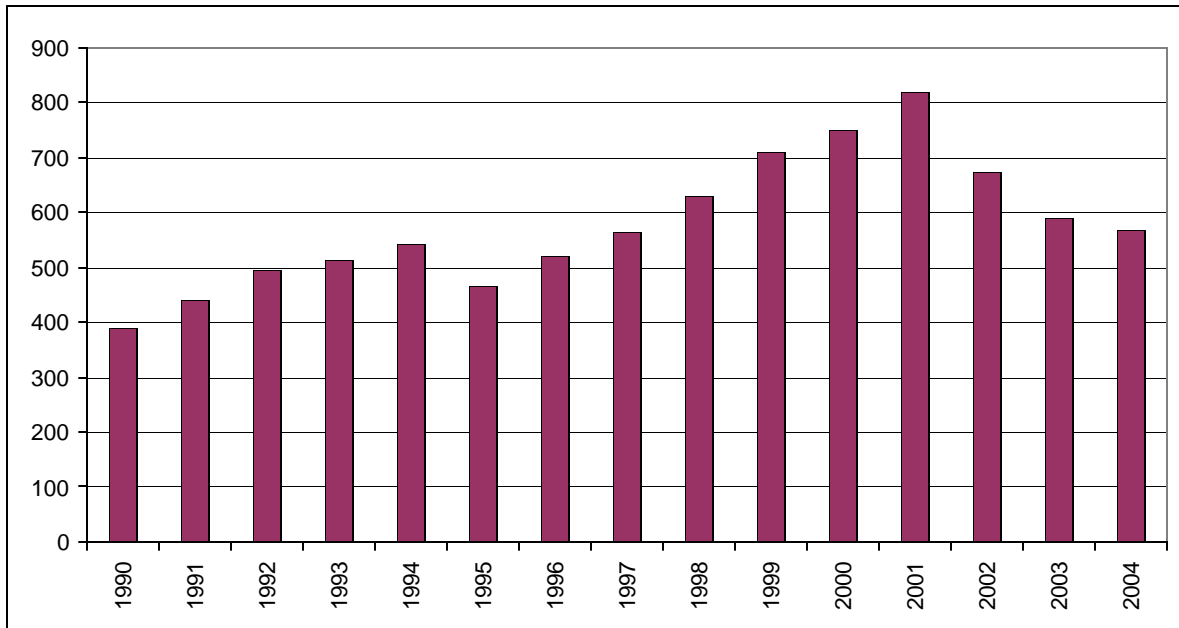


Source: INEGI

**Exhibit IV-8 Baja California and Tijuana Percentage of Plants in Mexico**



Source: INEGI

**Exhibit IV-9 Tijuana Plant Variation between 1990 and 2004**

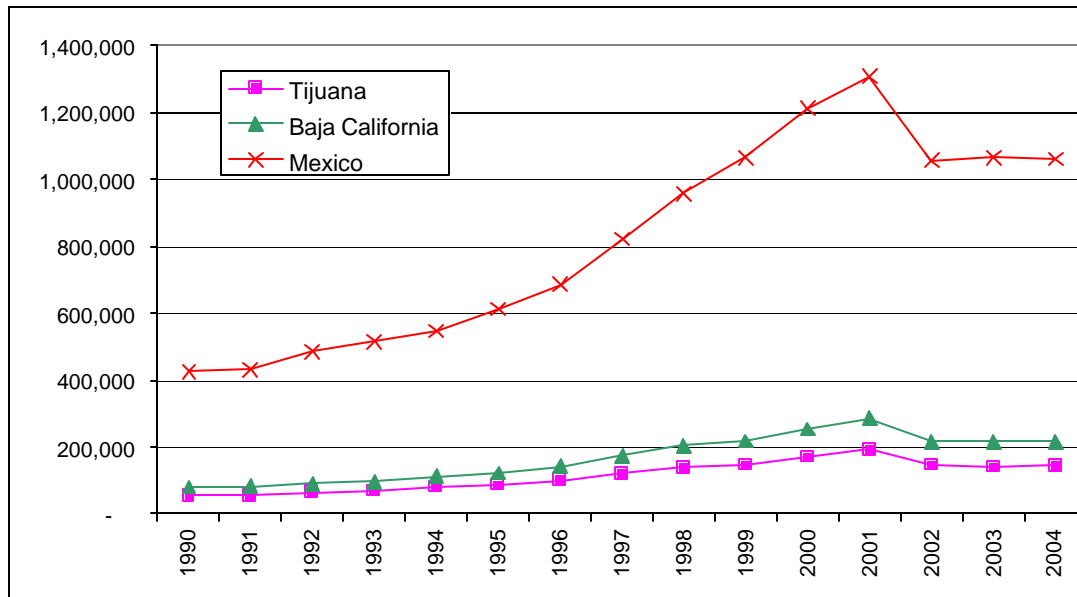
Source: INEGI

**Maquiladora Employment in Tijuana**

Employment generation in the maquiladora industry grew at a faster rate in Baja California and Tijuana than in Mexico between January 1995 and January 2001. Tijuana added 106,362 new jobs, increasing from 86,200 to 192,600 for a 14.3 percent compounded annual growth rate, compared to 15.1 percent in the state of Baja and 13.5 percent nationally.

During this time, Tijuana received 65.3 percent of total new employment in Baja California and 15.2 percent of new employment in Mexico. Exhibit IV-10 shows maquila employment trends in Mexico, Baja California and Tijuana as of January of every year between between 1994 and 2004.

**Exhibit IV-10 Mexico, Baja California and Tijuana Maquila Employment Trends between 1994 and 2004**

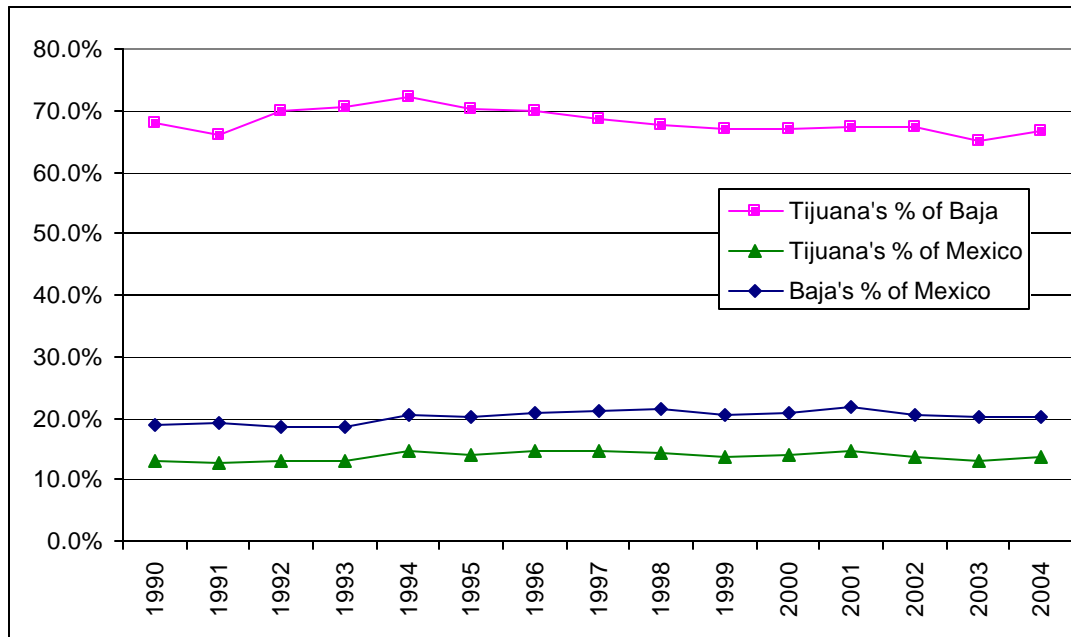


Source: INEGI

Tijuana's percentage of total employment in Baja California has remained fairly stable, ranging between 65 and 72 percent between January 1990 and January 2004. Baja California's percentage of total employment in Mexico has also been relatively consistent ranging between 18.6 percent and 21.8 percent during the same timeframe.

Exhibit IV-11 shows Tijuana's percentage of Baja California, Baja's percentage of Mexico and Tijuana's percentage of total maquila employment in Mexico as of January of every year between 1990 and 2004.

**Exhibit IV-11 Baja California and Tijuana Percentage of Maquila Employment in Mexico between 1990 and 2004**

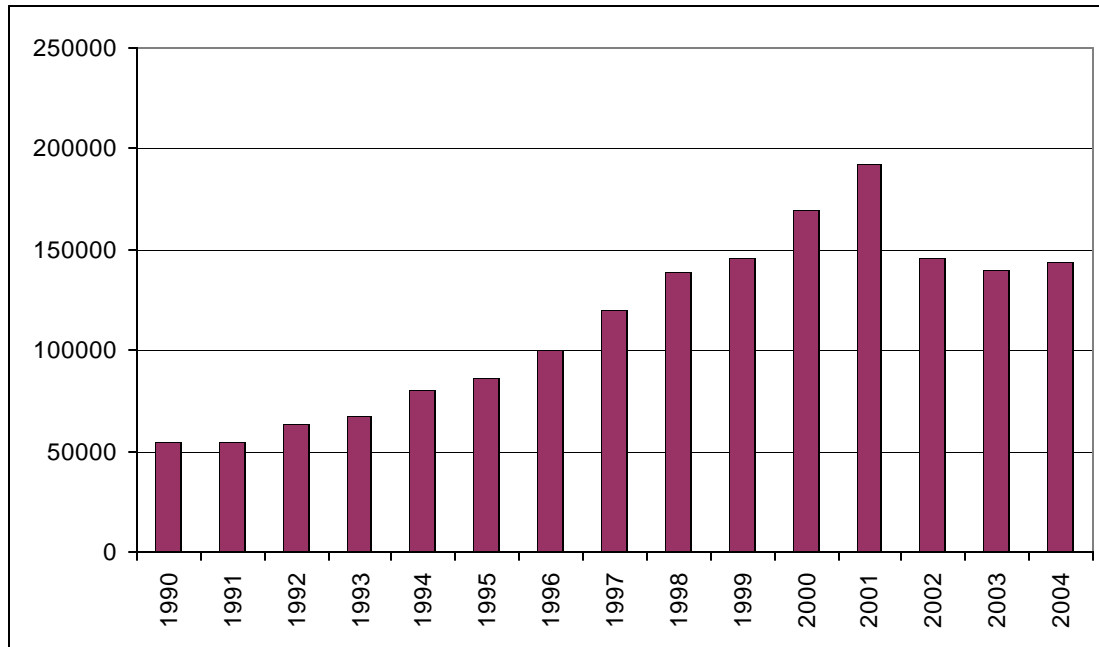


Source: INEGI

Between January 1994 and January 2001, Tijuana's maquiladora industry increased employment at a 13.3 percent compounded annual growth rate. The industry registered 192,600 employees, 137,900 more than in 1994. Tijuana's maquiladora dependence on the US market greatly affected the local economy, losing 47,000 jobs between January 2001 and January 2002, decreasing its workforce by 24.3 percent. In January 2003, total maquiladora employment stood at 139,700, almost 6,000 jobs less than in 2002, partially recovering by January 2004, with 4,162 more jobs than the previous year. Exhibit IV-12 shows employment trends in the maquiladora industry as of January of every year between 1990 and 2004.

Employment recovery started recently in Tijuana after signs of higher demand for products in the U.S. market. Between January and April 2004, approximately 7,000 new jobs have been created in the maquiladora industry. Forecasts seem positive as plants are in the process of hiring more than 16,000 employees. Still, unlike past recoveries, total employment has not yet rebounded to equal and surpass past highs.



**Exhibit IV-12 Tijuana Maquiladora Employment Trends Between 1990 and 2004**

Source: INEGI

### **Municipal and State Government Involvement in Attracting New Industries to the Region**

State and municipal entities are involved in attracting new investments to the region and retaining already established firms. At the state level, the Secretaria de Desarrollo Economico (SEDECO) promotes Baja California and keeps constant communication with both the private sector and municipal authorities. As a result, SEDECO has adopted the Politica de Desarrollo Empresarial (PDE), which defines the economic sectors relevant to the growth of the state during the next 20 years, based on the productive strengths of each municipality. The PDE establishes the creation of clusters to further reinforce the state's competitiveness in years to come.

Interest in higher levels of investment from Asian countries has been a main concern for the current government. Since the beginning of his administration, Governor Elorduy has made three trips to Asian countries to promote the state and attract new firms to the region.

DEITAC is the joint effort of both the public and private sectors to promote Tijuana. DEITAC is recognized by the Municipality of Tijuana, the State of Baja California and the Federal government as the institution in charge of helping international firms looking to establish operations in Tijuana. DEITAC always refers to the San Diego-Tijuana region as one economic entity, placing important consideration to this fact in their efforts to attract new investments to the

region. They maintain constant working relationships with similar entities on the US side that provide good leads from firms wishing to establish in the region.

The institution has received a larger than usual amount of leads and contacts from firms wishing to establish operations in Tijuana. According to DEITAC, the Tijuana region will see new firms establishing operations in the following years. They commented that two automotive firms have approached DEITAC to receive information on the region.

Besides attracting foreign companies, they are currently working to attract new investments from Mexican companies wishing to expand to the United States market. During the last two years, more Mexican firms are showing interest in Baja California.

### **Employment by Industry**

During the second half of the 1990's, the Tijuana metro area grew economically due to the industrial growth associated with the Maquiladora program. However, this growth has been diminished due to increased competition and factory relocations to Asian countries.

In 2000, of the 16,734 establishments in Tijuana, there were 6,000 establishments in the commerce sector, representing almost 37 percent of the total, although it only employed 18.6 percent of total employment in the city. Conversely, the processing industry employed more than 63 percent of total employment in Tijuana and only represented 23 percent of total establishments in the city. Within the processing industry, maquiladoras represented 20 percent of the establishments and almost 78 percent of employment.

Table IV-3 shows establishments and employment by industry in Tijuana in 2000.

**Table IV-3 Tijuana Establishments and Employment by Industry in 2000**

Sector	Establishments	Employees
Mining	13	122
Construction	1,540	17,276
Processing	3,896	238,194
Electric Plants, Water Filtering and Proc. Plants	6	581
Commerce	6,154	69,966
Transport and Communications	653	9,882
Business, Personal, Home Services	381	3,346
Social and Community services	4,091	36,820
<b>Total</b>	<b>16,734</b>	<b>376,187</b>

Source: Secretaria de Economía. SIEM

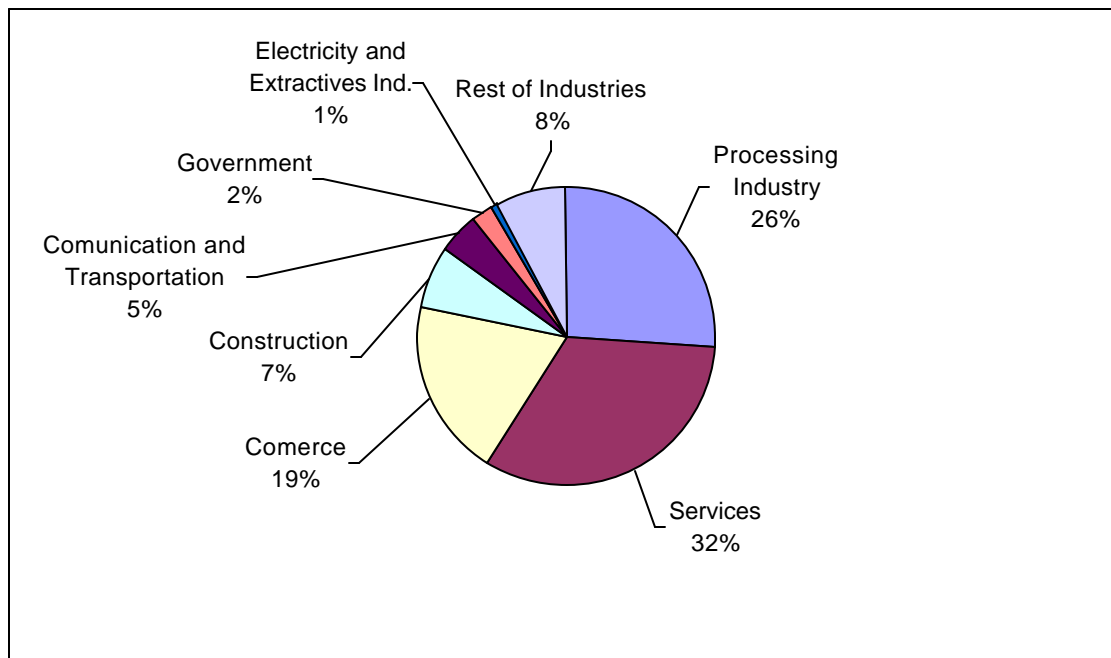
Industries share of the total economically active population in Tijuana has shifted through time, as shown in Table IV-4. Even though the services industry has steadily decreased its share of total EAP since 1950, it still represented the largest share in the city in 2002. The commerce sector also decreased its share of total EAP, from 23.2 percent in 1950 to 19.4 in 2002, while the processing industry decreased slightly between 1990 and 2002, from 28.8 percent to 26.4 percent respectively.

**Table IV-4 1950, 1970, 1990 and 2002 EAP Distribution by Industry in Tijuana**

Field of Activity	1950	1970	1990	2002
Processing	21.20%	23.70%	28.80%	26.40%
Construction	8.90%	7.50%	8.50%	6.90%
Electricity	1.40%	0.70%	0.60%	0.80%
Commerce	23.20%	18.60%	18.10%	19.40%
Communications and Transportation	6.10%	3.80%	5.00%	4.50%
Services	36.40%	36.70%	33.40%	32.20%
Other	2.80%	9.00%	5.60%	9.80%

Source: INEGI

Exhibit IV-13 shows 2002 Tijuana Quarterly Occupied Population Percentage by Industry.

**Exhibit IV-13 Tijuana Quarterly Occupied Population Percentage by Industry in 2002**

Source: INEGI. Anuario Estadístico 2003 Baja California

### Cross-Border Employment Trends

Tijuana's relationship with San Diego dates back to the construction of the racetrack and the Casino in the 1920's during prohibition in the United States. Since then, both metropolitan areas (San Diego County and metropolitan Tijuana) have grown dramatically, increasing their combined population base to 4.4 million.

It is estimated that 92 percent of Mexicans crossing the border at San Ysidro and Otay Mesa are residents of the ZM Tijuana. Border cities like Chula Vista, Bonita and San Ysidro recognize Tijuana residents an extension of the region's resident market more than a tourist market. San Diego Dialogue estimates that between 40-60 percent of all northbound border crossings are made for shopping. The Universidad Autonoma de Baja California (UABC) conducted a survey in 2001 and estimated that people from Baja California spend at least \$1.6 billion dollars every year in the San Diego region.

Besides shopping, many Tijuana residents cross the border for employment purposes. According to a survey by the San Diego South County Economic Development Council (SDEDC), 14 percent of South County employers responded that over 61 percent of their employees live south of the border. It is estimated that every day around 50,000 people cross into the United States for employment, resulting in 1 million trips per month and 12 million per year. Tijuana residents crossing to the United States for employment represent approximately 10 percent of the total



labor force in the city of Tijuana. By the same token, it is estimated that 10,000 people living in San Diego cross the international border to work in Tijuana. This represents 200,000 crossings per month and 2.4 million per year.

Currently, plans to rebuild the San Ysidro border crossing are being revised. The new crossing would double the number of port entries into the United States in an effort to relieve long waits experienced along the border. The number of entries to Mexico would also increase significantly. In addition, a third border crossing is planned east of the existing Otay crossing.

## **V. Infrastructure, Developments, Policies, and Incentives**

This section presents a discussion of existing and proposed infrastructure improvements in the San Diego/Tijuana Border Zone that can affect future support for development in Otay Mesa.

### ***Water Supply and Distribution***

Both City and County of San Diego authorities have current plans to provide adequate water supply to all existing and future developments planned in Otay Mesa and East Otay Mesa.

The developed City of San Diego segment of this area is well served with potable water. In areas planned but not currently developed, a number of major water supply and distribution projects are either in construction, in design or proposed. These will provide complete coverage to the area in conformity with current City and County development plans.

### **Potable Water**

Water is provided by a number of City and County authorities and water districts. The San Diego County Water District (CWA) provides water to retail water districts that in turn serve local consumers. Otay Water District provides retail water service for the County area located in the eastern segment of Otay Mesa; the San Diego Water District supplies Otay Mesa and San Ysidro within San Diego's city limits.

### **Reclamation and Reuse**

There is good potential for developing additional reclaimed water supplies in the San Diego/Tijuana border region. This is linked to the future City (74mgd), federal (25 to 100mgd) and Tijuana wastewater facilities.

The City of San Diego plans to develop up to 74mgd of wastewater treatment capacity in the South Bay area by 2050. A significant quantity of this wastewater could potentially be used as reclaimed water. The South Bay Water Reclamation Plant (SBWRP) opened in May 2002 and has a capacity of 15mgd. In addition, it is intended that the International Boundary and Water Commission/Comision Internacional de Limites Agua South Bay International Wastewater Treatment, which currently has advanced primary treatment capacity of 25mgd, will be upgraded and ultimately have the potential to provide a recycled water supply for the Tijuana area.

### ***Wastewater Infrastructure***

In order to provide an accessible source of reclaimed water in the South Bay area, the City of San Diego built an integrated sewer treatment and water reclamation facilities. These facilities consist of the Grove Avenue Pump Station and reclamation sewer and sludge pump lines, which divert reclaimable wastewater to the South Bay Water Reclamation Plant for treatment and reuse. Sludge will be conveyed to the Point Loma Wastewater Treatment Facility.

In addition, the Otay River Pump Station and conveyance project provides an additional eight million gallons per day of effluent to the South Bay Water Reclamation Plant. Flows through the reclamation plant will receive a minimum of secondary treatment with up to 15 million gallons receiving tertiary treatment for reuse in industry, agriculture, landscaping and conservation areas.

### ***Transportation Infrastructure***

Transportation facilities in the US area of the Border Zone serve international, regional and local traffic needs. Regional and local traffic systems have the dual purpose of filtering through traffic crossing the Border Zone, providing service to local industrial uses and the maquiladoras on the Mexican side of the border, as well as local residential needs. Significant investment will be required to service these multi-purpose traffic and major road links, which are currently in construction, in the design phases or are budgeted for development.

### **Regional Access Roads**

State Route 125, from the Otay Mesa Port of Entry to SR-905 and then proceeding in a northerly direction to connect to the region's freeway network, is a public/private partnership between CalTrans and California Transportation Ventures Inc. SR-125 is scheduled to open in fall 2006.

State Route 905 is projected to connect I-805 to the Otay Mesa Port of Entry. An alignment alternative is being proposed roughly 1,300 feet south of Otay Mesa Road. SR-905 will connect to SR-125. The estimated cost of the project is \$293 million.

A new freeway, SR-11, is planned to extend eastwards from the SR-905/SR-125 interchange to connect to a future border crossing east of the Border Zone.

The City of San Diego Otay Mesa Public Facilities Financing Plan identifies 34 important road projects, of which twelve were completed and the remaining twenty-two are scheduled for construction and completion in the years 2006 through 2025. This scheduling represents an assessment of funding availability and rate of urban growth and will be updated and reassessed on an annual basis.

### **Railways**

A freight line that crosses the border through San Ysidro into Mexico serves the border zone. This line, originally known as the San Diego and Arizona Eastern Desert line, eventually links back across the border to Imperial Valley and connects to both U.S. and Mexican rail networks. While the line to Imperial Valley has been closed for many years, a number of proposals have been made to upgrade and reconnect this system as an additional way of moving goods and traffic in the Border Zone.

## **Airports**

Two airports serve the Border Zone, Brown Field, a civil aviation airport in Otay Mesa owned by the City of San Diego, and Tijuana's Rodriguez International Airport, located adjacent to the international border.

Tijuana's International Airport has recently undergone the expansion of its passenger terminal building, adding new gates to its existing building with the intention to attract new international flights, especially from Asia and the United States. Additionally, one story has been added to the parking structure serving the airport.

An old warehouse has been remodeled to serve as the new fiscal facility, responding to the needs of the industrial sector in Tijuana. Instead of bringing some raw materials for assembly into Los Angeles Airport, Tijuana industries will save time and money by flying materials directly into Tijuana, going through one customs process instead of two. Ensenada fish companies are expected to use the Tijuana fiscal terminal instead of the L.A. terminal as well. Complementing the fiscal facility, light industrial uses are planned in the airport's surrounding area as well as new loading and unloading facilities.

## **Power**

A major electric power plant just north of the international border and east of the existing Otay Mesa Port of Entry is currently under construction and scheduled to open in January 2008. The plant's estimated capacity is 590-megawatts. This plant will have sufficient capacity to meet the power needs of future land use change in Otay Mesa.

## **Educational Infrastructure**

### **Joint Southwestern College/San Diego State University Campus in Otay Mesa**

Southwestern College identified construction funds for an Otay Mesa campus with 77,000 square feet of educational space in a 38-acre site. The site is located at the corner of La Media Road and SR-905, bordering Airway Drive to the south. Construction has been delayed, as Caltrans is requiring 12 acres of Southwestern College's site to widen the road intersection of SR-905 and La Media. Officials at Southwestern College believe construction will begin in 2 years.

## **Additional Border Crossings**

According to the Tijuana Economic Development Council (EDC or CDT in Spanish), there are three separate projects involving border crossings, one of which is Otay Mesa II, also known as the "Third Border Crossing."



Otay Mesa II responds to the need for a third border crossing in the region, primarily for truck traffic and closer to the growing industrial areas in the eastern Tijuana metro area. The new crossing is expected to decrease wait times in all border crossings. Currently, on the Mexican side, land acquisitions from private owners have slowed down the process. This third entry would be linked to the U.S. road network as well as the almost complete Highway 2000 corridor in Tijuana, decreasing heavy traffic crossing the Tijuana metropolitan area from Rosarito and Ensenada.

### ***Economic Incentives***

Businesses operating or locating in the Border Zone are eligible to receive benefits under several incentive programs.

### ***San Ysidro / Otay Mesa Enterprise Zone***

Enterprise Zone status is a State of California designation aimed at stimulating business investments and creating jobs in economically depressed areas. The San Ysidro/Otay Mesa Enterprise Zone was established in 1992. There are 39 enterprise zones throughout the state.

Enterprise Zones provide businesses several tax incentives, including credit for hiring qualified employees (veterans, dislocated workers, ex-offenders, and economically disadvantaged individuals), credit for sales or use tax paid or incurred on property purchased for exclusive use in an enterprise zone (qualified property includes manufacturing equipment, equipment to produce renewable energy, and pollution control equipment or machinery), business expense deduction for the cost of certain property, net operating loss carryover and net interest deduction for lenders.

Additionally, employees who work in an Enterprise Zone are eligible for a tax credit that reduces the amount of their income tax.

### ***Foreign Trade Zone***

Foreign Trade Zones (FTZs), though physically located within the United States, are considered outside U.S. Customs territory. Companies located within an FTZ may receive foreign merchandise, parts and components duty-free. Products from an FTZ remain duty-and tax-free if they are exported to another country. They are subject to taxes and duties only if they enter U.S. Customs territory, with the advantage to defer payment of taxes and duties until the products leave the zone.

San Diego's FTZ is in the Otay Mesa Community Planning Area. This strategic location serves the maquiladora industry of Tijuana, Mexico. The FTZ appeals to companies that buy or receive imported products from foreign or domestic vendors. Manufacturing, distribution and exporters of imported merchandise take advantage of the FTZ.

### ***Recycling Market Development Zone***

The County of San Diego has designated the Recycling Market Development Zone for the purpose of fostering growth of the recycling industry. There are currently two zones, one located in the Border Zone.

Advantages offered in Recycling Zones include access to Recycling Market Development Zone Loan Program (low-interest loan program for manufacturers), favorable zoning codes for recycling facilities, expedited permit processing and assistance, employee recruitment assistance, feedstock identification assistance, site location assistance, low electrical utility rate and referrals to local agencies and business assistance groups.

The South San Diego Recycling Market Development Zone and the San Ysidro/Otay Mesa Enterprise Zone overlap in the industrial areas of Otay Mesa, and businesses located here are eligible for benefits from both programs.

### ***Infrastructure Impact Program***

The purpose of this program is to mitigate the negative impacts of major infrastructure projects (trolley lines, water and sewer, major road and freeway construction, streetscape improvements) on small businesses. First, program staff provides information to affected parties including merchants, customers, and residents. Second, merchants and construction agencies are brought together to identify solutions to potential problems and resolve concerns. Third, city departments—now more aware of the importance of impact mitigation—use the program to help coordinate their efforts. Finally, the program provides technical assistance directly to affected businesses.

### ***Border Infrastructure Financing District***

In 1999, the California legislature passed SB 207, which allows cities and counties to create Infrastructure Financing Districts (IFDs) to finance infrastructure within three miles of the US border with Mexico. IFDs operate like Redevelopment Project Areas, using the approval of affected taxing entities to apply local property tax increment toward projects including:

- Sewage collection, treatment and reclamation facilities
- Facilities for collection and treatment of urban use water supply
- Facilities and projects for flood control
- Facilities for child care
- Park and recreation facilities, and open space
- Libraries
- Highways, major and minor arterial streets and phased widening projects

Although no IFD has been created yet, City and County officials have investigated their applicability to Otay Mesa.

## VI. Real Estate Market Overview

### ***Introduction***

ERA has conducted an overview level analysis of key market indicators for employment, retail commercial, and residential uses in the San Diego County market area and relevant submarkets. The following presents a summary of the analysis and our findings.

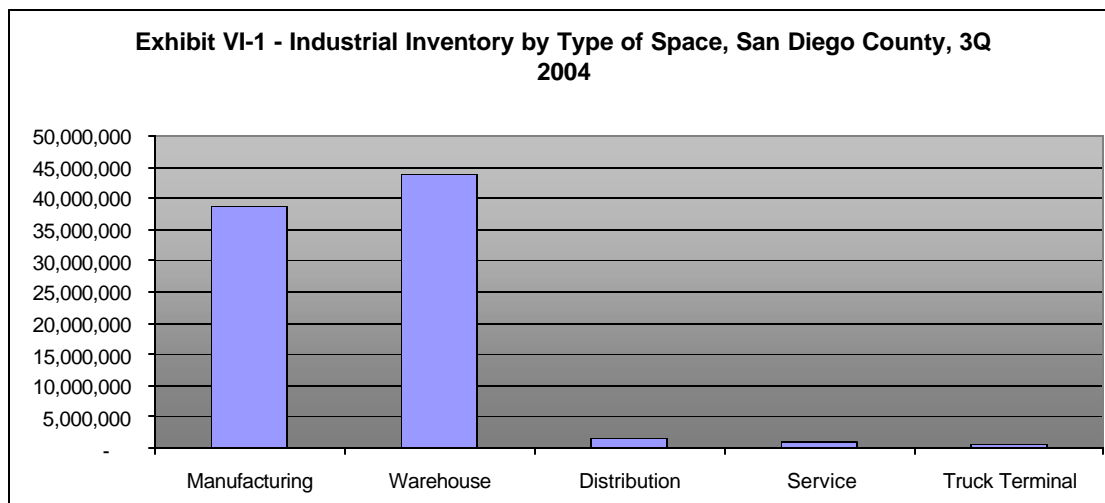
### ***Industrial Market***

Otay Mesa's industrial characteristics were compared to the county as a whole and Kearny Mesa, one of the more diversified and competitive general industrial sub-markets in the region, as a point of reference. Our analysis of industrial market data for San Diego County and the Otay Mesa and Kearny Mesa sub-markets has focused on the primary industrial sectors found in Otay Mesa, namely manufacturing, warehouse, distribution, services, and truck terminal sectors. In conducting this analysis we have utilized industrial market data obtained from CoStar. This data is based on the primary use of buildings. Secondary uses at particular locations are not reflected in the data.

### **San Diego County**

#### **Inventory**

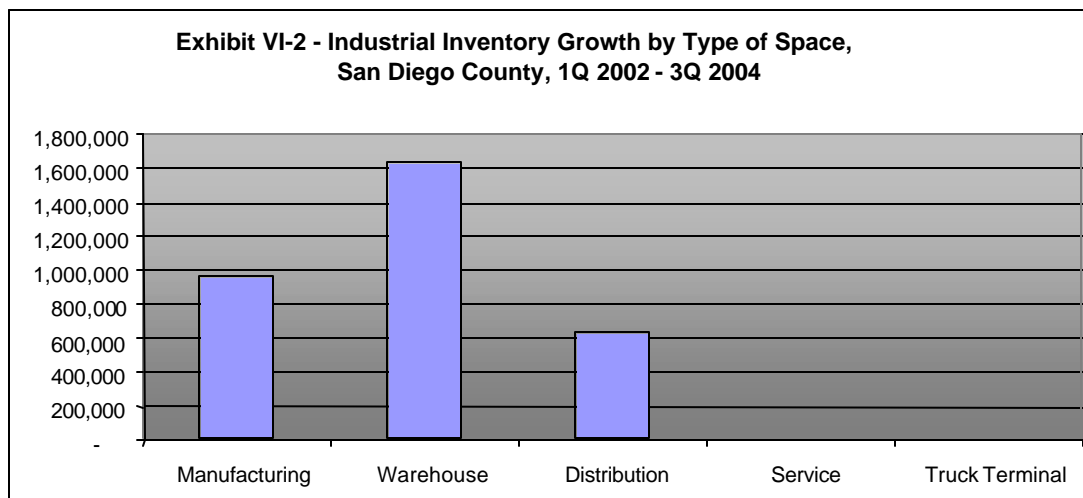
The total industrial inventory in San Diego County is approximately 178 million square feet. Exhibit VI-1 presents the industrial leased inventory (3<sup>rd</sup> Qtr, 2004) for five specific industrial categories that comprise a subset of total industrial inventory.



Source: CoStar Group and Economics Research Associates

At around 82.3 million square feet, leased manufacturing and warehouse space together account for approximately 47 percent of the county inventory. Distribution, service and truck terminal collectively amount to approximately 1.7 million square feet of space.

San Diego County witnessed a growth in total industrial inventory of approximately 5.2 million square feet between first quarter 2002 and third quarter 2004. Industrial inventory growth in the five uses analyzed during the same 2.5-year period is illustrated in the following exhibit.

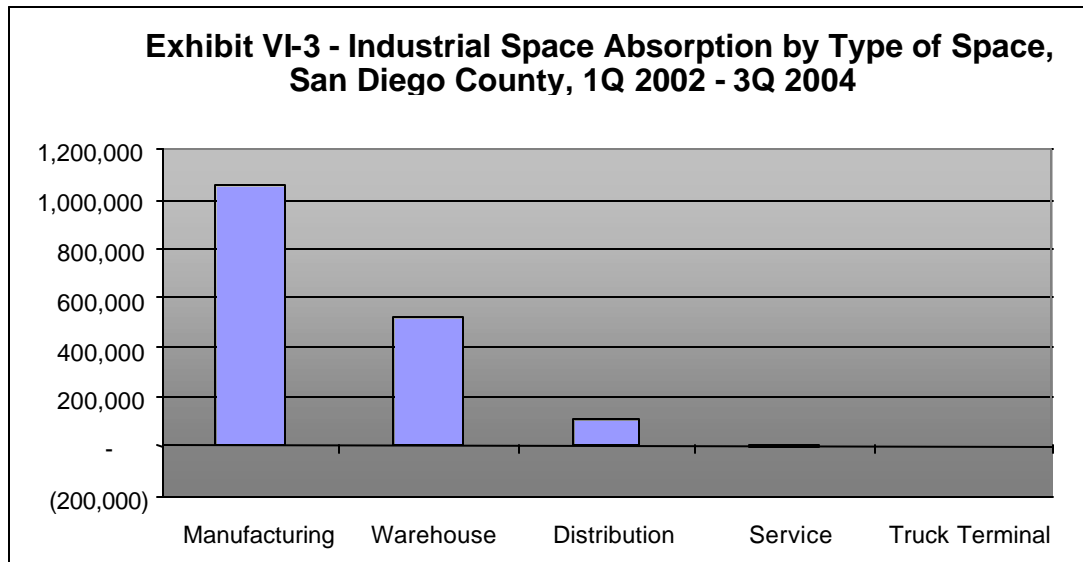


Source: CoStar Group and Economics Research Associates

Exhibit VI-2 indicates that of the five uses analyzed, warehouse, distribution and manufacturing uses account for all of the growth in the inventory. The same sectors account for approximately 61.4 percent of total industrial inventory growth in the county. While distribution space represents less than one percent of total county inventory, it accounted for approximately 12 percent of recent growth indicating a potential shift in demand for space in this sector.

### Absorption

Net space absorption is measured in terms of the change in the quantity of occupied space. This is perhaps the best indicator of the level of demand for space in the region. During the period between first quarter 2002 and third quarter 2004, the San Diego County regional market absorbed approximately 2.9 million square feet of industrial space. Absorption in the five industrial sectors analyzed is depicted in Exhibit VI-3 below. The chart reveals that the region did experience positive absorption in the manufacturing, warehouse, and distribution sectors with a total of 1.6 million square feet absorbed. Indeed, these three sectors accounted for approximately 60 percent of total industrial space absorption in the region during this period.

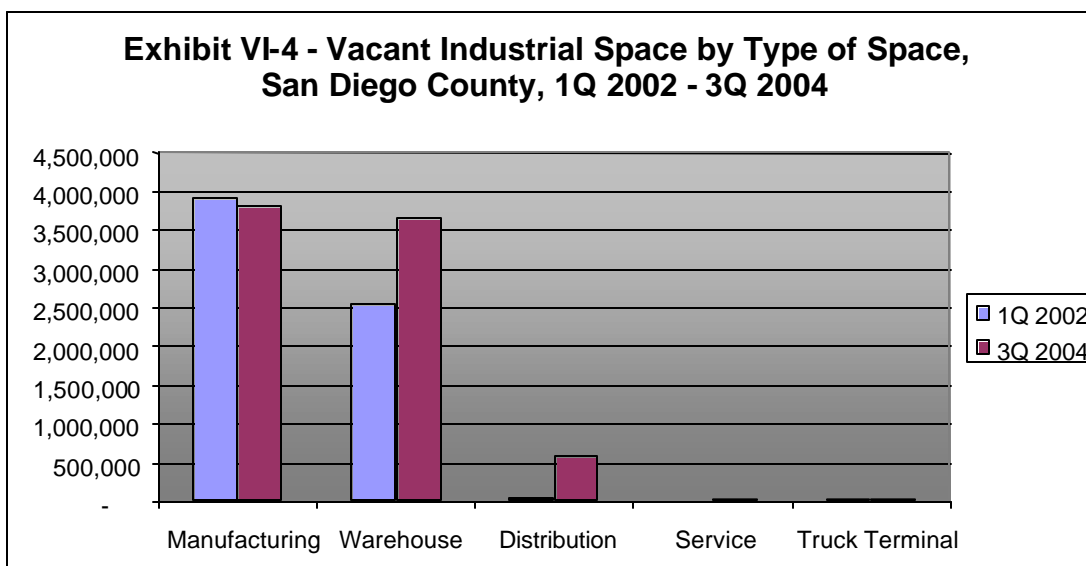


Source: CoStar Group and Economics Research Associates

Demand for space in the manufacturing sector was greatest at approximately 1.06 million square feet. Demand in both the service and truck terminal sectors remained static with modest negative absorption in the service sector.

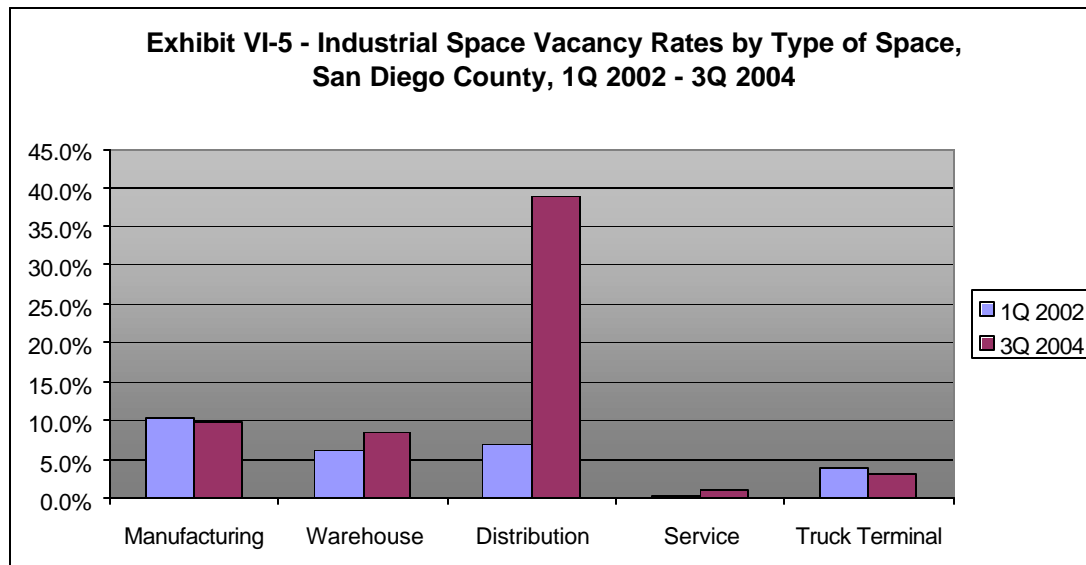
### Vacancy

As of the third quarter 2004, approximately 14.6 million square feet of industrial space in San Diego stood vacant representing a vacancy rate of around 8.3 percent, indicating a modest oversupply of industrial space in the region. Exhibit VI-4 below depicts vacant space by type of space for the five sectors analyzed.



Source: CoStar Group and Economics Research Associates

The chart indicates a small decrease in the quantity of vacant manufacturing space despite the addition of approximately one million square feet of space, suggesting demand is keeping pace with the increase in supply. The increase in the quantity of vacant warehouse space is partially supply driven with approximately 1.6 million square feet of space added to the inventory during the same period. The increase in vacant distribution space versus inventory growth in this sector also suggests the potential for supply driven vacancy. That is, increases in supply will likely outpace demand in the near term. The impact on vacancy rates is illustrated in Exhibit VI-5 below.

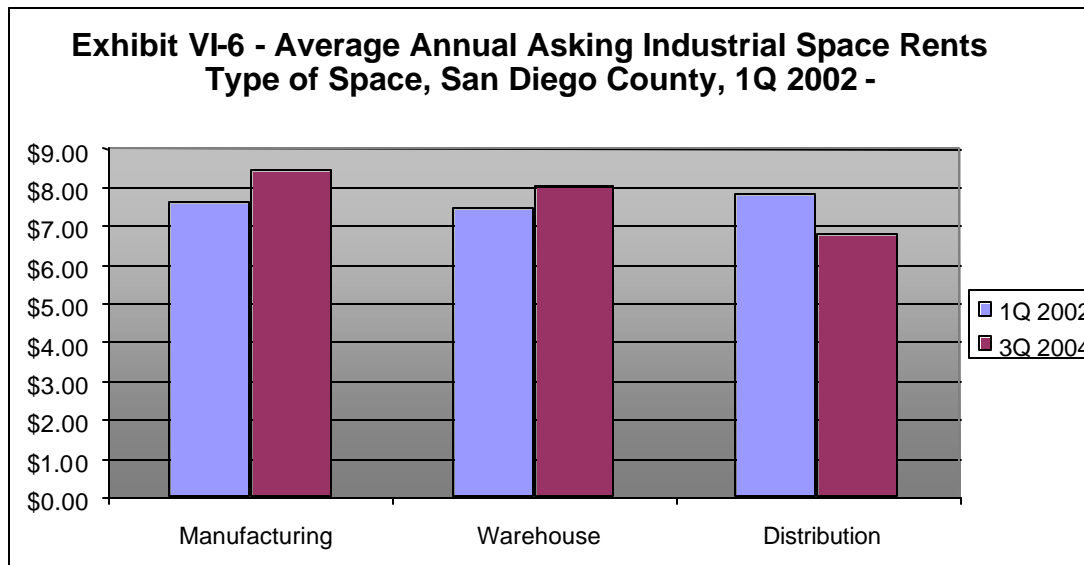


Source: CoStar Group and Economics Research Associates

Clearly, the slight drop in the vacancy rate in the manufacturing sector from 10.4 to 9.9 percent indicates that demand is keeping pace with increases in supply. However, vacancy levels are above acceptable stabilized vacancy levels suggesting there remains a modest oversupply of space in this sector. While the warehouse sector vacancy rate has increased to around 8.4 percent, the oversupply is more modest. The distribution sector vacancy rate has grown sharply from around 6.9 to 38.8 percent indicating that demand has not kept pace with supply. Vacancy rates in the service and truck terminal sectors are at or below acceptable stabilized levels.

### Rents

Average asking rents for the industrial sectors analyzed in San Diego County for which data was available are presented in Exhibit VI-6 below. Average manufacturing rents range between approximately \$6.80 annually (\$0.57 monthly) for distribution space to approximately \$8.45 per square foot annually (\$0.70 monthly) for manufacturing space. Both manufacturing and warehouse rents have increased at or above CPI during the past two and a half years reflecting the healthy increase in demand.



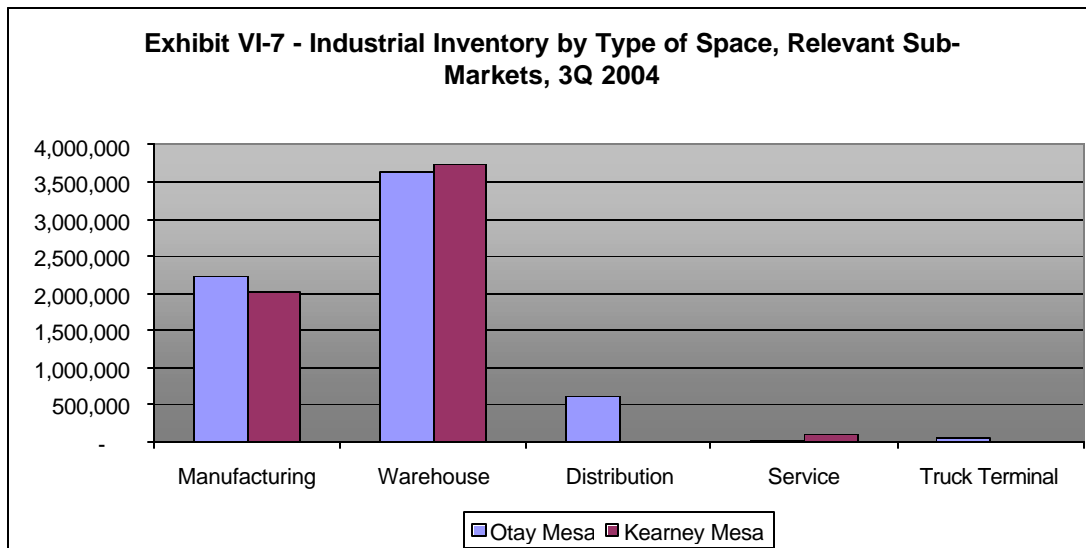
Source: CoStar Group and Economics Research Associates

However, the oversupply in the distribution sector has resulted in substantial drop in the rental rate from approximately \$7.85 per square foot annually (\$0.65 monthly) to \$6.80 annually (\$0.57 monthly). We anticipate that this drop will be temporary in nature and the rate should rebound as the market adjusts to the current oversupply.

### Relevant Sub-Markets – Otay Mesa and Kearney Mesa

#### Inventory

Recent industrial inventory data for the five sectors analyzed for the Otay Mesa and Kearney Mesa sub-markets is presented in Exhibit VI-7 below.



Source: CoStar Group and Economics Research Associates

Otay Mesa currently has a total industrial inventory of approximately 10.1 million square feet of industrial space or around 5.6 percent of the regional market. At approximately 6.5 million square feet in size, the Otay Mesa inventory in the five specific sectors analyzed currently constitutes approximately 8.0 percent of the regional market. Kearny Mesa accounts for approximately 7.1 percent of the county inventory in these sectors. The chart reveals that the warehouse sector dominates the industrial inventory in both sub-markets with the sizes comparable at between 3.6 and 3.7 million square feet. Manufacturing inventories are also comparable at approximately 2.3 million square feet in Otay Mesa and 2.0 million square feet in Kearny Mesa. The manufacturing sector in Otay Mesa includes a significant quantity of uses such as manufacturing packaging, distribution, and warehousing facilities for manufacturing concerns and other similar subsidiary uses. Distribution is an emerging sector in Otay Mesa currently at approximately 600,000 square feet, most of which has been developed in the past two years or so.

**Table VI-1 – New Industrial Construction in Otay Mesa, 1990 - 2005**

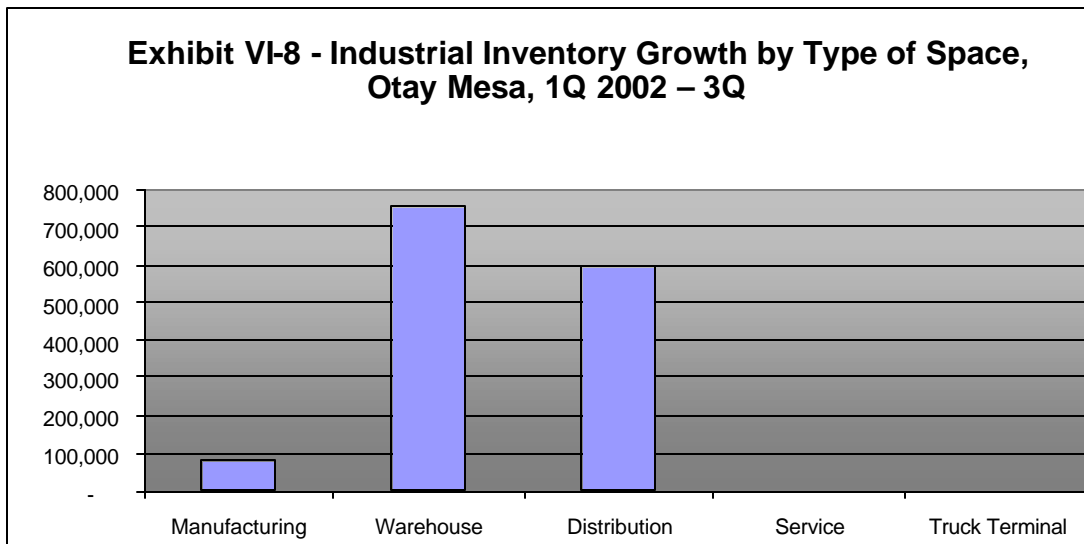
<b>Year Built</b>	<b>Rentable Building Area (SF)</b>	<b>Number of Buildings</b>
1990	1,103,708	21
1991	533,199	21
1992	303,080	7
1993	23,606	3
1994	23,077	2
1995	143,705	2
1996	436,166	8
1997	98,040	2
1998	618,446	6
1999	935,203	18
2000	549,243	6
2001	946,389	16
2002	833,467	15
2003	1,031,597	5
2004	435,935	17
2005	324,868	8
<b>Total</b>	<b>8,339,729</b>	<b>157</b>

Source: CoStar Group



Table VI-1 illustrates historic industrial development activity in Otay Mesa between 1990 and 2005. Committed deliveries currently under construction are included in the value for 2005. The data reveals that during the 16 years of the analysis, approximately 8.3 million square feet of industrial space has been developed in Otay Mesa or an average of around 500,000 square feet per year. The development activity appears to have been typically cyclical, slowing during and following the recession of the early 1990's, accelerating through the boom around the turn of the decade, and slowing during the recent recession.

Recent industrial inventory growth in the five industrial sectors analyzed in Otay Mesa Sub-markets is illustrated in Exhibit VI-8 below. There has been no appreciable inventory growth during the past 2.5 years in the Kearny Mesa sub-market.

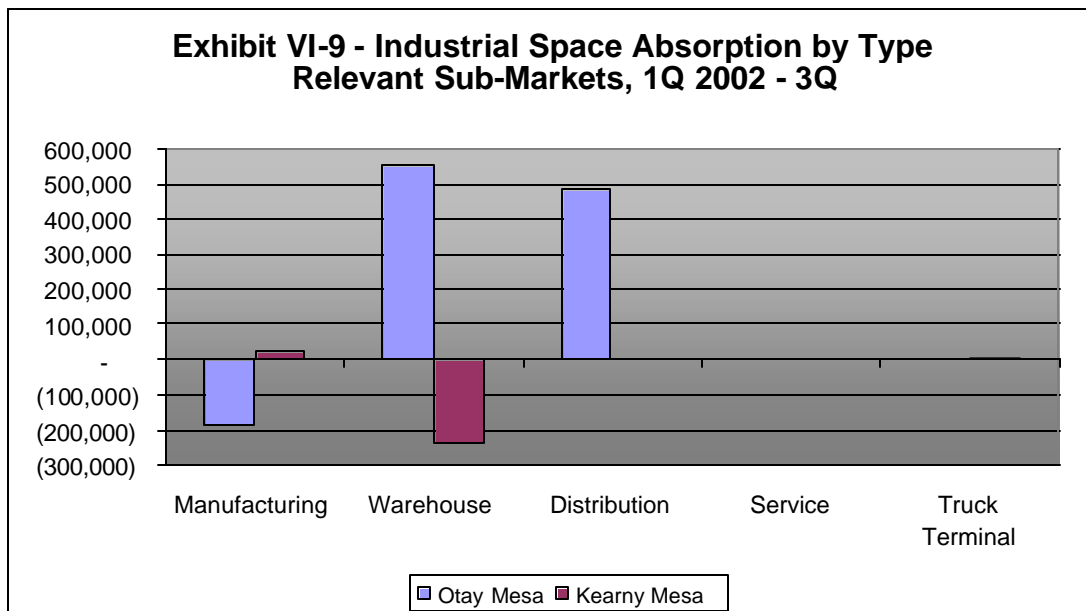


Source: CoStar Group and Economics Research Associates

Warehouse and distribution space sectors have dominated inventory growth in the Otay Mesa sub-market, combining for an additional 1.3 million square feet of space. Growth in the Otay Mesa inventory in these five sectors has accounted for approximately 44.4 percent of total County growth in the same sectors. While manufacturing space accounts for approximately 34 percent of the industrial inventory in these sectors, it has only accounted for approximately six percent of recent growth, suggesting a possible shift in demand to other sectors. This could be caused by a combination of the current recession, changes in the maquiladora economy brought about by increased competition from China, and increased competitiveness of Otay Mesa for warehouse and distribution uses which should be enhanced following the completion of I-125.

### Absorption

Exhibit VI-9 below presents recent industrial absorption activity for the two sub-markets chosen for comparison between first quarter 2002 and third quarter 2004. The chart reveals that while demand appears to be solid for warehouse and distribution space in Otay Mesa with a total of over one million square feet absorbed during this period, demand has been weak for manufacturing space with the sector witnessing negative absorption of around 190,000 square feet. Total Otay Mesa absorption in these five sectors amounted to approximately 50 percent of total county absorption in the same sectors.

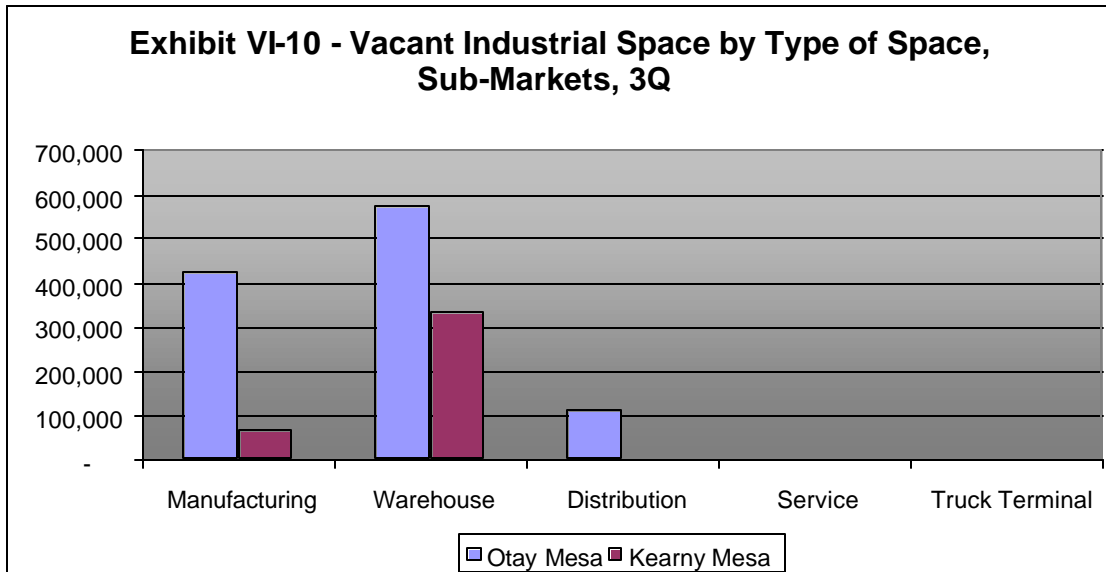


Source: CoStar Group and Economics Research Associates

Conversely, demand for industrial space in Kearny Mesa appears to be placing downward pressure on vacancy given the absence of new inventory in the manufacturing sector, although demand in the warehouse sector appears to have weakened with negative absorption of over 200,000 square feet of space.

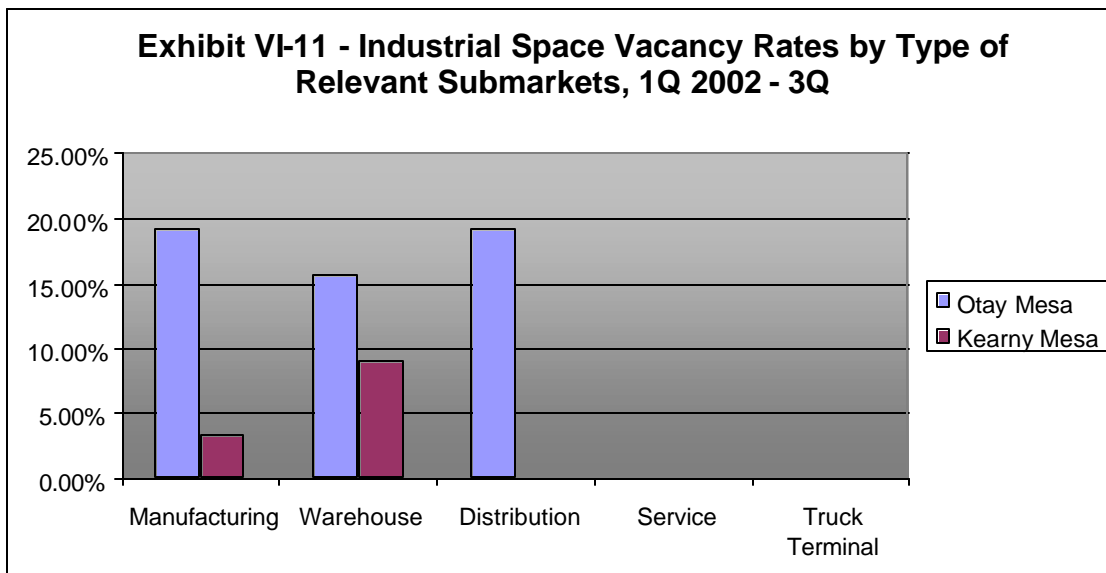
### Vacancy

Vacant industrial space data for the relevant sub-markets is presented in Exhibit VI-10. As of third quarter 2004, there was approximately 1.1 million square feet of vacant industrial space in the five industry sectors analyzed in Otay Mesa and approximately 400,000 square feet in Kearny Mesa. Approximately 110,000 square feet of distribution space also lies vacant in Otay Mesa.



Source: CoStar Group and Economics Research Associates

The impact on industrial vacancy rates in the two sub-markets is illustrated in Exhibit VI-11 below.

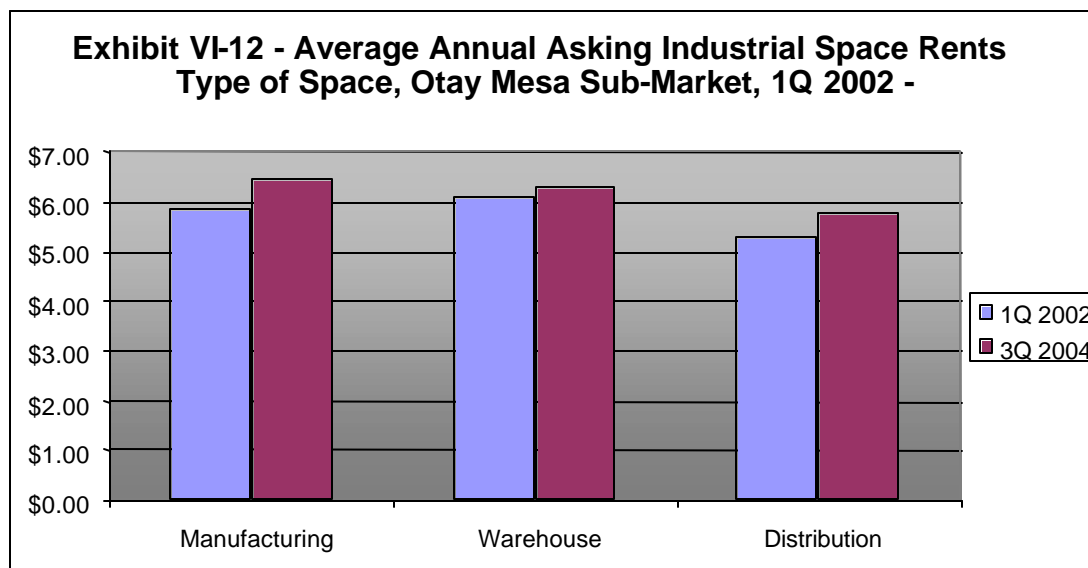


Source: CoStar Group and Economics Research Associates

As of third quarter 2004, industrial vacancy rates in Otay Mesa for the three major categories of space range between approximately 15.7 and 19.7 percent, well above an accepted stabilized rate of around 7.0 percent. We currently estimate that there is currently an oversupply in the Otay Mesa sub-market of approximately 660,000 square feet of space in this sub-market. Vacancy rates in the Kearny Mesa sub-market in the manufacturing and warehouse sectors were below or around tolerable stabilized rates.

### Rents

Exhibit VI-12 below provides average asking rental rate data for the Otay Mesa sub-market. As of third quarter 2004, average asking rents ranged from approximately \$5.80 per square foot annually (\$0.48 monthly) for distribution space to approximately \$6.50 for manufacturing space (\$0.54 monthly). These rates are significantly lower than the averages for San Diego County presented above, which range between \$6.80 and \$8.45 per square foot annually (\$0.57 - \$0.70 monthly).



Source: CoStar Group and Economics Research Associates

Rental rates have increased across the board in all three sectors although the rate of increase in the warehouse sector has been below CPI at around 1.4 percent annually during the past 2.5 years. Typical rental rates in the Kearny Mesa sub-market between \$9.00 and \$12.00 per square foot are substantially higher than the regional averages. This can be explained by the preponderance of flex and office user space.

### Land and Building Sales and Prices

Historical and recent land sales data for Otay Mesa is presented in Table VI-2 below. Following the recession of the early nineties, per square foot land values gradually rebounded during the mid-nineties and accelerated at well beyond CPI around the turn of the decade. Sales activity followed a similar pattern. Recent sales data suggests that achievable industrial land prices are in the \$7.20 - \$7.80 range. We believe the recent increase in land values can be attributed to several factors including a shortage of remaining readily developable industrial tracts in Otay Mesa within the City's jurisdiction and speculative purchases.

**Table VI-2 - Land And Building Sales Activity and Prices, Otay Mesa, 1991 - 2004**

Year	Land		Buildings	
	#	Price PSF	#	Price PSF
1991	3	\$2.29	4	\$68.47
1992	1	\$5.26	1	\$56.00
1993	0	N/A	2	\$56.40
1994	3	\$2.03	4	\$38.12
1995	6	\$3.46	2	\$40.25
1996	0	N/A	3	\$98.18
1997	5	\$2.59	1	\$48.24
1998	11	\$3.08	6	\$52.24
1999	5	\$3.17	8	\$55.65
2000	12	\$3.49	8	\$63.26
2001	18	\$4.31	8	\$94.09
2002	12	\$4.28	13	\$71.46
2003	18	\$5.73	13	\$85.80
2004	10	\$7.52	4	\$86.99

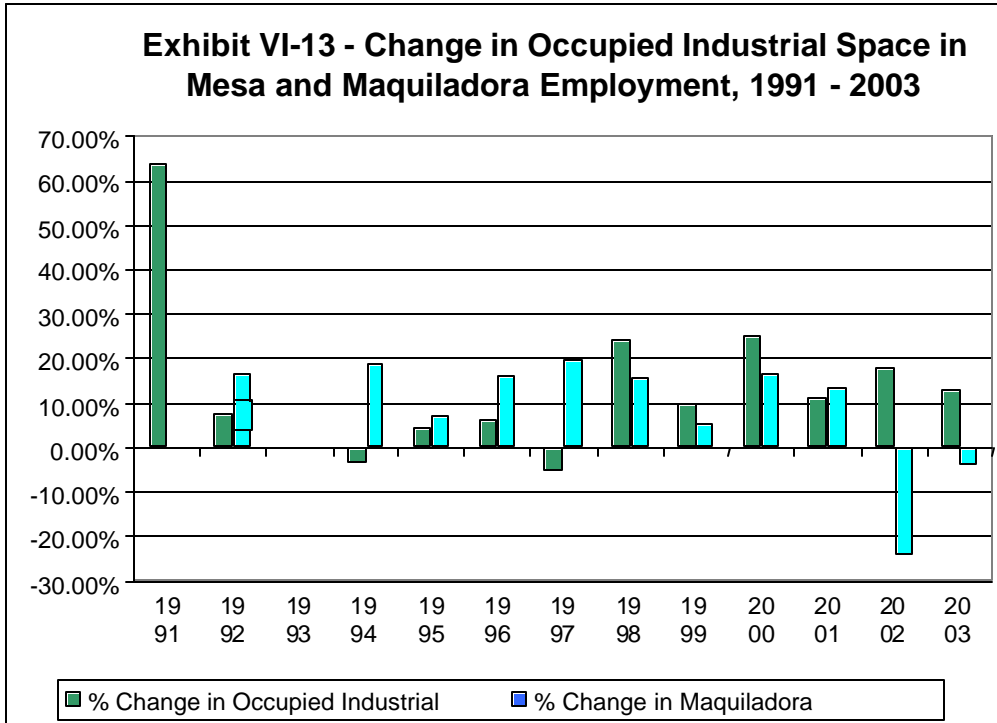
Source: CoStar Group and Economics Research Associates

Building sales and prices have followed a similar pattern for similar reasons. At present, we believe average building sales prices are in the \$80 – \$90 range per square foot.

### The Relationship between Maquiladora Industry and Demand for Industrial Space in Otay Mesa

Given the relationship between the maquiladora industry in Tijuana and demand for industrial space in Otay Mesa, ERA has conducted a comparative analysis of the historical change in occupied industrial space in Otay Mesa and variation in employment in Tijuana's maquiladora industry between 1991 and 2003. The results are summarized in Exhibit VI-13 below. The results of the analysis suggests there is a very loose correlation between the two variables although the results also suggest that there are other factors at work affecting the demand for industrial space in Otay Mesa.

Between 1991 and 1994 the U.S. recession appears to have been the dominant factor in industrial demand rather than Maquiladora employment. There was a fairly close correlation between industrial space demanded in Otay Mesa and maquiladora employment during the period between 1998 and 2000. In 2002 and 2003, industrial space increases in Otay Mesa remained strong despite significant employment losses in the maquiladora industry as a result of the introduction of China to the WTO and the US recession.



Source: Burnham Real Estate & INEGI

The results of the analysis seem to suggest that other factors are at play in determining the level of demand for industrial space in Otay Mesa, including the strength of the domestic economy and regional dynamics in the San Diego region.

### Conclusions – Industrial Market

While Otay Mesa currently comprises just 8.0 percent of the total inventory in the regional market in the five sectors analyzed, it has been capturing approximately 44 percent of inventory growth during the past two and a half years. Otay Mesa also captured approximately 50 percent of regional absorption. There are however some qualifications to these statistics. First, the market was in the tail end of a recession with weak overall absorption that can artificially skew the results of these type of analysis. Second, vacancy rates in Otay Mesa are well above acceptable stabilized rates and we estimate that there is approximately 660,000 square feet of oversupply in the market that, based on recent trends, should take around two years for the market

to absorb. Nevertheless, we anticipate that Otay Mesa will continue to increase its share of the regional market place capturing upwards of 25 percent of the regional warehouse and distribution market during the next five to ten years.

### **Office Market**

The office market in Otay Mesa is very much an emerging market and currently limited to flex office space accommodating supporting industrial office uses and local professional service office uses such as small law offices, architects and medical offices. The Otay Mesa office market area constitutes part of the South San Diego office sub-market is defined as space located south of Interstate-94 and east of Interstate-5. The Otay Mesa area will compete with other competitive nodes such as Chula Vista and the planned town center component of Otay Ranch to the north. The following provides a brief overview of office market conditions in the San Diego County region and the South San Diego sub-market.

Based on data published by CB Richard Ellis through second quarter 2004, the San Diego multi-tenant office market contains approximately 49.2 million square feet of office space. This in turn is comprised of approximately 8.8 million square feet in the Central Business District (CBD) and 40.4 million in suburban areas. The South San Diego sub-market contains approximately 1.1 million square feet of space or approximately 2.2 percent of the market. Approximately 195,000 square feet of space was added to the inventory during the first half of 2004 of which approximately 82,000 square feet came on-line in the South San Diego sub-market. As of the end of second quarter 2004, there was approximately 1.6 million square feet of space under construction in the region of which around 163,000 square feet was located in the South San Diego sub-market.

During the first half of 2004, the region witnessed approximately 405,000 square feet of net absorption. The South San Diego sub-market witnessed positive absorption of approximately 100,000 square feet or around 25 percent of the regional total.

As of the end of the second quarter 2004, vacancy rates in the region stood at around nine percent, within stabilized levels of between 8 and 10 percent. The vacancy rate in the South San Diego sub-market was 9.7 percent.

Average asking office rents in the region at the end of the second quarter 2004 were approximately \$1.90 per square foot. Average rates for class A space were approximately \$2.23. The average lease rate in the South San Diego sub-market was \$1.06. This rate is substantially lower than the regional lease rate due largely to the preponderance of flex space and class C space users in the sub-market.

## **Conclusion – Office Market**

We believe that over the forecast horizon, Otay Mesa will face significant competition from Chula Vista and the planned eastern urban center in Otay Ranch within the South San Diego sub-market. Much of the new office development will likely continue to be flex space serving local professional service industries rather than substantial class A space development.

## ***Residential Market***

### **For-Sale Housing**

ERA has conducted an analysis of the for-sale production housing market in the South Bay sub-market which includes Otay Mesa and the competing areas of Chula Vista, San Ysidro and Imperial Beach. We have utilized market data obtained from the Myers Group for this analysis and a summary of the data is presented in Table VI-3 below. The data was prepared for the third quarter 2003 and includes year-to-date (YTD) sales data.

During the period analyzed there were approximately seven residential projects in Otay Mesa, two offering attached homes and five offering detached homes. Average home prices ranged from approximately \$272,000 for attached units to around \$490,000 for detached units. YTD sales equaled approximately 91 attached units and 306 detached units for a total of around 400 units. This translates to annualized sales of approximately 530. Total YTD sales in the South Bay sub-market were approximately 2,360. Therefore, as of third quarter 2003, Otay Mesa was capturing around 17 percent of the South Bay market. Average monthly sales in the seven projects were approximately 7.75 for attached units and 7.6 for detached units.

Chula Vista had 8 projects offering attached homes and 36 detached home projects. The YTD sales in the Chula Vista area were comprised of around 475 attached units and 1,360 detached homes for a total of approximately 3,190 units. As such, the Chula Vista sub-market was the dominant competitive area in the sub-market capturing around 78 percent of the market. Otay Mesa and Chula Vista combined are capturing approximately 94 percent of the South Bay market. There remain approximately 2,800 planned units yet to be constructed in the currently active projects in Chula Vista. Average sales prices were comparable to Otay Mesa although attached units appear to command higher prices. Prices range from \$297,000 for attached homes, approximately \$20,000 or nine percent per unit higher than Otay Mesa, to \$490,000 for detached homes. The sales rates were around 9.5 attached units per month and 5.5 detached units per month.





Table VI-3 San Diego South Bay Housing Market

PROJECT NAME	BUILDER	TYPE	YTD SALES	TOTAL UNITS PLANNED	MIN LOT SIZE	BASE PRICE RANGE	FINAL SQFT RANGE	PRICE/SQFT RANGE	OPEN DATE	TOTAL UNITS SOLD	YTD SALES RATE	OVRL SALES RATE
<u>Chula Vista - Attached</u>												
TOTALS/AVERAGES:			474	677		\$297,710	1,372	\$219.67		580	10.54	9.51
<u>Chula Vista - Detached</u>												
TOTALS/AVERAGES:			1,358	3,985	5,415	\$490,115	2,600	\$193.97		2,594	5.44	5.50
<u>Otay Mesa - Attached</u>												
AURORA	Greystone Homes	town house	70	238	N/A	\$262,000	1,053	\$190.98	11/2/02	85	7.78	7.75
Greystone Homes						\$305,000	1,597	\$248.81				
WESTVIEW	McMillin Homes	single family	21	98	6,000	\$379,000	1,813	\$214.77	8/31/02	98	5.10	
McMillin Homes						\$458,000	2,386	\$238.25				
TOTALS/AVERAGES:			91	336		\$272,114	1,348	\$203.69		183	7.78	7.75
<u>Otay Mesa - Detached</u>												
SEAGATE	Pardee Homes	single family	77	147	4,000	\$444,900	2,159	\$191.62	1/11/03	77	8.87	8.87
Pardee Homes						\$486,900	2,541	\$211.12				
TRADEWINDS	McMillin Homes	single family	75	116	5,900	\$425,990	1,788	\$214.77	8/31/02	115	8.33	8.82
McMillin Homes						\$499,990	2,328	\$238.25				
SANDALWOOD	Pardee Homes	single family	64	160	4,000	\$408,900	1,680	\$200.43	11/15/02	89	7.11	8.45
Pardee Homes						\$440,900	2,176	\$247.56				
DOLPHIN COVE	Reynolds Communities	single family	29	123	4,500	\$469,000	1,814	\$165.12	5/4/02	121	3.22	7.16
Reynolds Communities						\$660,900	3,240	\$303.14				
SEA CLIFF	Pardee Homes	single family	61	212	5,000	\$489,900	2,730	\$156.27	5/26/01	184	6.78	6.53
Pardee Homes						\$529,900	3,391	\$179.45				
TOTALS/AVERAGES:			306	758	4,680	\$436,868	2,369	\$188.21		586	6.85	7.58
<u>San Ysidro - Attached</u>												
TOTALS/AVERAGES:			22	22		\$229,720	906	\$254.17		22	6.17	6.17
<u>San Ysidro - Detached</u>												
TOTALS/AVERAGES:			79	202	3,800	\$364,818	2,012	\$183.18		140	8.78	7.85
<u>Imperial Beach - Attached</u>												
TOTALS/AVERAGES:			30	30		\$241,000	1,175	\$206.69		30	1.53	
GRAND TOTALS/AVERAGES:			2,360	6,010	4,611	\$437,995	2,295	\$197.72		4,135	6.25	6.14

Source: The Meyers Group

YTD Sales in San Ysidro totaled around 100 or around 4.2 percent of the South Bay Market. Prices in the projects ranged from an average of \$230,000 for attached units and \$365,000 for detached units. These are substantially lower than Otay Mesa and indicate products positioned toward the low-end or entry market segment. Imperial Beach makes up the balance of the South Bay Market capturing around 1.5 percent of the market.

### **Conclusions – Residential Market**

Our analysis suggests that Otay Mesa is second to the Chula Vista market in the South Bay Sub-market in terms of both market capture and achievable prices. We believe that over time Otay Mesa is well positioned to capitalize on depleted land supply in Chula Vista as Otay Ranch approaches build-out.

### ***Retail Market***

#### **Sources of Market Support**

Otay Mesa will face significant regional competition in Chula Vista, including new freeway commercial centers in Chula Vista, a proposed regional shopping center, a planned university commercial district, and the Eastern Urban Center, all along SR-125 with direct links to Otay Mesa and the border. National City's Plaza Bonita is also accessible. Chula Vista is planning with the Port a specialty retail development on its Bayfront, and its downtown is a source of competition for South County residents and Mexican shoppers. San Ysidro is positioned to capture cross-border shopping with the Plaza de las Americas, and the tourist traveler market along Interstate-5. Several community and neighborhood shopping centers in lower South County communities also serve local residents and Mexican shoppers. Mission Valley and downtown San Diego are regional destinations for entertainment and fashion shopping. Tijuana's retail options are growing, with U.S. chains already in the market, including Costco and Office Depot. Wal-Mart, Sam's Club, and Home Depot are located in other Mexican cities and may consider opportunities in the Tijuana metro area in the future.

Therefore, the primary sources of market support for retail space within Otay Mesa are community residents, workers within Otay Mesa, Mexican nationals in the Tijuana metro area, and miscellaneous travelers and regional residents who live outside Otay Mesa.

#### **Land Sales Transactions**

ERA has reviewed retail/commercial land sales transactions in Otay Mesa obtained from CoStar Group for the period between 1997 and 2004. A summary of the data is presented in Table VI-4 below.

**Table VI-4 Retail/Commercial Land Transactions, Otay Mesa, 1997 – 2004**

<b>Sale Date</b>	<b>Property Description</b>	<b>SF</b>	<b>Sale Price</b>	<b>Price/SF</b>
11/27/1996	OM-C Zoned Commercial	1,305,493	\$2,375,000	\$1.82
4/25/1997	Service Station Site	57,499	\$425,000	\$7.39
10/10/1997	OM-C Zoned Commercial	3,331,469	\$1,857,000	\$0.56
3/6/1998	Self Srvc Gas Statn/Mini Mart Site	152,024	\$750,000	\$4.93
4/16/1998	Movie Theater	762,736	\$7,503,500	\$9.84
4/28/2000	Retail Warehouse Site	673,917	\$10,109,000	\$15.00
11/20/2001	Strip Center Site	97,455	\$686,000	\$7.04
12/24/2001	Neighborhood/Community Center Site	673,873	\$600,000	\$0.89
3/26/2004	Commercial Zoned Parcel	80,586	\$920,000	\$11.42

Source: CoStar Group and Economics Research Associates

The results of our analysis reveal a wide variety of per square foot values ranging from around \$1.00 to approximately \$15.00. In general, however, most values appear to fall in the \$5.00 to \$10.00 range depending on the use and location.

### **Industry Sources of Retail Sales Tax**

In developing a long-range land use plan for Otay Mesa, a useful input is the contribution made by particular industry sectors to retail sales taxes. ERA has therefore conducted an analysis of the retail sales taxes derived from Otay Mesa that the City of San Diego collected. The results are presented in Table VI-5.

**Table VI-5 City of San Diego Retail Sales Taxes Derived from Otay Mesa  
by Industry Segment, 2003**

<b>Segment</b>	<b>Sales Taxes</b>	<b>% of Total</b>
Bldg.Matls-Retail	2,252,213	19.3%
Department Stores	2,523,888	21.6%
Service Stations	1,616,937	13.9%
Bldg.Matls-Whsle	1,001,141	8.6%
Auto Parts/Repair	873,991	7.5%
Auto Sales - Used	804,429	6.9%
Restaurants	454,404	3.9%
Leasing	603,431	5.2%
Food Markets	416,314	3.6%
Light Industry	238,140	2.0%
Miscellaneous Retail	233,120	2.0%
Heavy Industry	213,954	1.8%
All Other	431,197	3.7%
<b>Total</b>	<b>11,663,159</b>	<b>100.0%</b>

Source: MBIA and City of San Diego



Clearly the building construction materials industry is the dominant sector with the wholesale and retail building materials categories combining for approximately 27.9 percent of total sales taxes collected. By comparison, the light and heavy industrial sectors combine for a total of approximately 3.8 percent of retail sales taxes.

## VII. Market Demand Parameters

ERA estimated the potential long-term demand for industrial, office, residential, and retail land uses in Otay Mesa for the period 2000 to 2030. The purpose of these forecast ranges is to provide capacity parameters for long-term land use planning. Given the uncertainty associated with a 30-year time horizon and the cyclical nature of real estate demand and development, they should not be interpreted as precise annual market absorption projections.

### ***Industrial Space***

Table VII-1 presents projected growth for industrial space (including industrial, distribution, and R&D space) over time countywide, based on projected growth in those sectors that utilize industrial space and applying an average employment density factor per worker. The employment density factor was based on the increase in industrial space from 1990 to 2000 countywide divided by estimated growth in employment in the selected sectors. This assumed factor changes over time as the distribution of projected employment growth by sector changes over time. Some sectors, such as wholesale trade, tend to use more space per worker than other sectors, such as the services sector. A structural vacancy rate of 7 percent was assumed. Overall, the San Diego region is projected to support an increase of 77.7 million square feet of industrial space from 2000 to 2030, compared to a base supply of approximately 175 million square feet in the year 2000 (including owner occupied and leasable space). At an average floor-area ratio of 0.40, and an 85 percent net-to-gross acreage factor, the 77.7 million square feet translates into demand for approximately 5,600 gross acres from 2000 to 2030.

Table VII-2 presents SANDAG's inventory of vacant developable industrial acres in selected markets countywide. In the year 2000, the last year available that SANDAG reports for the all of the region's communities and planning areas, there were approximately 7,500 acres available in submarkets that had 10 or more acres available. This inventory accounts for industrial lands permitted by land use policy and zoning, whether or not the land is readily deliverable for near term development. Only a portion of this inventory is available for near term development. Otay Mesa and East Otay Mesa account for approximately 2,250 acres of this inventory, or almost 30 percent.

The City of San Diego Economic Development staff, however, note that their tracking records indicate that fewer industrial acres are actually developable. Some of this difference may be attributable to the City's more recent inventories of industrial parcels within the City of San Diego that are not available for the rest of the county. Based on the City's inventory, the overstatement of supply that SANDAG reported for the City of San Diego in 2000 may be as high as 37 percent (or over 1,070 acres), if truck storage land in Otay Mesa is not included in the

**Table VII-1:**  
**SAN DIEGO COUNTY INDUSTRIAL SPACE DEMAND PROJECTIONS - 2000 to 2030**

1990-2000 Trends(1):					
Yr.	Total GLA	Occupied GLA	Occupied GLA Total Increase	Occupied GLA Avg. Annual Increase	CAGR
1990	131,238,575	114,833,753			
2000	168,448,368	156,993,879	42,160,126	4,216,013	3.2%

	Assumed % Using Industrial	1990	2000	CAGR 1990-2000 (2)	2010	CAGR 2000-2010 (2)	2020	CAGR 2010-2020 (2)	2030	CAGR 2020-2030 (2)
<u>Employment (SIC Categories)</u>										
Manufacturing	97.0%	130,174	125,324	-0.4%	113,065	-1.0%	113,317	0.0%	114,939	0.1%
Construction	20.0%	10,320	14,000	3.1%	15,731	1.2%	15,879	0.1%	15,724	-0.1%
Transportation, Comm. & Pub. Util. (3)	48.0%	17,232	24,384	3.5%	26,822	1.0%	29,128	0.8%	33,181	1.3%
Wholesale Trade	100.0%	44,100	51,000	1.5%	55,808	0.9%	64,870	1.5%	74,453	1.4%
Services (4)	18.5%	49,266	73,852	4.1%	85,307	1.5%	97,894	1.4%	111,092	1.3%
Total		251,092	288,560		296,733		321,089		349,390	
Increase in Industrial Employment By Period			37,469		8,173		24,356		28,301	
Estimated Occupied Industrial Space / Empl. (5)			1,125		1,198		1,146		1,222	
Total Increase in Industrial Space Demand By Period from Employment Growth			42,160,126		9,792,669		27,902,001		34,592,485	
Total Supportable Space Allowing for Structural Vacancy of:	7%				10,529,751		30,002,151		37,196,220	
Annual Average Increase in Supportable Industrial Space Supply By Period					1,052,975		3,000,215		3,719,622	
Total Industrial Space at End of Period Including Owner-Occupied Space (6)			175,186,303		185,716,054		215,718,205		252,914,425	
Cumulative Increase in Supportable Industrial Space Supply 2000-2030					10,529,751		40,531,902		77,728,122	

(1) Torto Wheaton Research, A CB Richard Ellis Business Unit; Sedway Group

(2) Per SANDAG's 2030 Projections

(3) Based on 1997 (last year of SIC classification system) percentage of trans./pub.util employment in trucking & warehousing and pipelines, and 60% of transportation services, communications, and electricity-gas-sanitation services.

(4) Based on 1997 (last year of SIC classification system) percentage of services employment in 50% of business services, motion picture production and distribution services, and engineering & management services.

(5) Changing weighted-average factors based on projected changes in the employment growth by sector and each sector's assumed space/employment ratio.

(6) Based on ratio difference between CoStar's inventory of all industrial space and CB Richard Ellis' inventory of space.

Source: Economics Research Associates



**Table VII-2:  
VACANT DEVELOPABLE INDUSTRIAL LANDS - YEAR 2000**

<b>Selected Submarkets</b>	<b>Developable Acres</b>	<b>Percent of Total (1)</b>
Carlsbad	546	7.3%
Carmel Valley	55	0.7%
Chula Vista	814	10.9%
East Otay	572	7.6%
El Cajon	49	0.7%
Encanto	26	0.3%
Escondido	256	3.4%
Kearny Mesa	159	2.1%
Lakeside	624	8.3%
Lindbergh Field	125	1.7%
Miramar Ranch North	48	0.6%
Mire Mesa	253	3.4%
National City	13	0.2%
Navajo	62	0.8%
Oceanside	563	7.5%
Otay Mesa	1,675	22.3%
Poway	341	4.5%
Ramona	70	0.9%
Ranch Bernardo	63	0.8%
Sabre Springs	17	0.2%
San Marcos	291	3.9%
San Ysidro	39	0.5%
Santee	38	0.5%
Sorrento Hills	30	0.4%
Spring Valley	44	0.6%
Srcipps Miramar	73	1.0%
Tierra Santa	31	0.4%
Tijuana River Valley	82	1.1%
Torrey Pines	19	0.3%
University	219	2.9%
Vista	300	4.0%
<b>Total</b>	<b>7,499</b>	<b>100.0%</b>

Notes:

(1) Inventory only includes communities with 10 or more development acres.

Source: SANDAG; and Economics Research Associates

inventory of vacant developable acres, or 20 percent if the land currently occupied by truck storage in Otay Mesa is considered part of the City's inventory of developable industrial land.

A spot investigation of some of the other jurisdictions in the region that contain significant industrial acreage indicates that a potential overstatement of supply due to topographical and environmental constraints may not be as great in their jurisdictions. SANDAG and the San Diego Regional Economic Development Corporation (EDC), in conjunction with local commercial and industrial brokers, conducted the last systematic parcel-by-parcel evaluation of long-term industrial land supply and suitability in 2000. The report, *2000 Employment Lands Inventory and Market Analysis*, contained data that indicated 9 percent of the non-retail employment lands in the region's jurisdictions other than the City of San Diego were "not marketable." This study did not distinguish between industrial and other types of non-retail employment lands, but is the only data available of its type on a countywide basis.

In addition to SANDAG's 2000 inventory of undeveloped long-term industrial land, downward adjustments identified by the City of San Diego's Economic Development Division, and lesser downward adjustments for the region's other jurisdictions, there are additions to the year 2000 inventory. In particular, the City of Chula Vista is proposing to add almost 300 acres as part of its General Plan update, and the County's inventory in East Otay Mesa is 2,289 gross acres rather than the 572 acres reported by SANDAG in year 2000. The additional acreage in East Otay Mesa was not reported in 2000 because the adopted East Otay Specific Plan had not yet been reflected in SANDAG's numbers. Assuming that 80 percent of the East Otay Mesa's 2,289 gross industrial acres is developable, the East Otay Mesa inventory that SANDAG reported in 2000 may be understated by almost 1,260 acres. With all of these downward and upward adjustments, our best estimate of year 2000 regional long-term industrial land supply ranges from almost 7,060 to 7,550 acres, depending on whether truck storage land in Otay Mesa is considered part of the developable inventory. The City of San Diego's Otay Mesa and the County's East Otay Mesa, combined, comprise 41 to 45 percent of this long-term inventory.

The inventory illustrates that there is sufficient capacity countywide to accommodate demand between 2000 and 2030, and, therefore, Otay Mesa will continue to face regional competition. However, most of the industrial areas that are within the center of the region and generally preferred because of their locations and access to the regional freeway network to reach customers and a broad workforce, such as Kearny Mesa and Mira Mesa, have limited supplies of remaining land (159 and 253 acres, respectively), and will reach build-out within the next decade. Most of the public discussion of an existing or impending industrial land shortage is centered around the limited near-to-mid term deliverable industrial lots (in particular larger lots for campus users), and the diminishing supply of land that is within these north City of San Diego, central



County sub-markets, where near-to-mid term inventories are less than 1,000 acres according to City sources and industrial brokers.

As these areas approach build-out, land prices and rents will rise, driving some industrial occupants elsewhere in search of lower cost space. Otay Mesa's main long-term competitors within the county for this demand will be the outlying suburbs, such as the communities along the SR-76 corridor in North County, Carlsbad, Poway, Lakeside, and Chula Vista, and intensification overtime of existing occupied industrial lands in the central sub-markets of the region as sites are redeveloped or buildings re-used.

Currently, Otay Mesa has approximately 5.7 percent of countywide occupied industrial space (including leasable and owner-occupied space). Since the first quarter of 2002, Otay Mesa has absorbed approximately 1.45 million square feet, or 580,000 square feet per year, equal to approximately half of the industrial space absorbed countywide during the least two and half years. Since 1994, Otay Mesa has absorbed approximately 600,000 square feet per year, or approximately 17.5 percent of countywide absorption, well in excess of its share of total supply of occupied space.

Since recent annual absorption is near historical amounts, the recent increase in market share appears to be more a function of reduced absorption elsewhere in the county in industrial areas that are tied to other industries, such as technology, than a major shift in regional preferences towards Otay Mesa. As other industries and, therefore, industrial space demand rebounds, Otay Mesa's share of regional demand should fall from recent levels, though still remain significant and generally higher than historical levels.

## Projected Industrial Demand

Table VII-3 presents projected demand for industrial space in the Otay Mesa Community Plan area under the following three scenarios:

**Low Scenario** – Assumes that industrial growth rates in Mexico rebound from recent declines (though not necessarily at historical rates) and that Otay Mesa’s market position diversifies and appeals to general industrial users that are priced out of the region’s central industrial areas, such as Kearny Mesa. While it is assumed that Otay Mesa’s recent regional market share is not maintained as other industrial sectors in the region recover and generate demand in the more central competitive areas, Otay Mesa’s market share overall during the period is still above historical levels.

**Moderate Scenario** – Assumes that industrial growth rates in Mexico rebound more strongly, that Otay Mesa’s market position diversifies and strongly appeals to general industrial users, (especially as improvements to SR-125 and a SR-905 improve accessibility), and that Otay Mesa begins to attract a share of the region’s growing technology sectors. Again, while it is assumed that Otay Mesa’s recent regional market share is not maintained as other industrial sectors that generate demand elsewhere in the region recover, Otay Mesa’s market share overall during the period is still above historical levels and growing at a more aggressive rate than under the Low Scenario. Otay Mesa’s market share, however, is still below its share of regional land inventory due to market preferences for other sub-markets that still have significant supply and the intensification of industrial land use in the highly preferred central regional sub-markets.

**High Scenario** – This scenario reflects the City of San Diego’s Economic Development Division’s position that the high regional market share that Otay Mesa experienced during the last few years will be sustained and that Otay Mesa will aggressively capture more than its share of regional land supply due continued strong demand in warehousing/distribution, relocated manufacturing, infrastructure improvements and competitive land and occupancy costs, the lost of industrial land in central locations to other uses, and limitations in industrial land intensification in the region.

Table VII-3 presents projected demand for new industrial space from 2000 to 2030 in Otay Mesa (City and County portions combined), ranging from 18.6 million s.f. in the Low Scenario, to 23.0 million s.f. in the Moderate Scenario, to 34.0 million s.f. in the High Scenario. Adding the inventory that existed in 2000, by 2030 the estimated amount of industrial space in Otay Mesa (City and County combined) ranges from 25.8 to 41.2 million square feet. Otay Mesa’s estimated share of countywide supply (including existing occupied supply) would increase from 5.7 percent



**Table VII-3:  
PROJECTED DEMAND FOR INDUSTRIAL SPACE IN OTAY MESA**

	2000	2010	2020	2030
<u>Countywide</u>				
Estimated Increase in Industrial Space During Previous 10 Years		10,529,751	30,002,151	37,196,220
<u>Otay Mesa Capture Rate Scenarios</u>				
Low Scenario		40.0%	20.0%	22.5%
Moderate Scenario		50.0%	25.0%	27.5%
High Scenario		50.0%	40.0%	45.0%
<u>Otay Mesa New Space Demand for Period at 7% Structural Vacancy</u>				
Low Scenario		4,211,901	6,000,430	8,369,149
Moderate Scenario		5,264,876	7,500,538	10,228,960
High Scenario		5,264,876	12,000,860	16,738,299
<u>Otay Mesa Cumulative New Space at 7% Structural Vacancy</u>				
Low Scenario		4,211,901	10,212,331	18,581,480
Moderate Scenario		5,264,876	12,765,413	22,994,374
High Scenario		5,264,876	17,265,736	34,004,035
<u>Estimated Otay Mesa Demand Within City of San Diego</u>				
Assumed % Within City of San Diego		95%	85%	65%
Low Scenario		4,001,306	5,100,366	5,439,947
Moderate Scenario		5,001,632	6,375,457	6,648,824
High Scenario		5,001,632	10,200,731	10,879,894
<u>Otay Mesa Community Plan Cumulative New Space at 7% Structural Vacancy</u>				
Low Scenario		4,001,306	9,101,671	14,541,618
Moderate Scenario		5,001,632	11,377,089	18,025,913
High Scenario		5,001,632	15,202,363	26,082,258
<u>Cummulative Net New Acreage Demanded Based on Average FAR</u>				
Assumed Average FAR		0.40	0.45	0.50
Low Scenario		230	464	668
Moderate Scenario		287	580	828
High Scenario		287	776	1,198
<u>Cumulative Gross New Acreage Demanded (net to gross ratio of 80%)</u>				
Low Scenario		287	580	835
Moderate Scenario		359	726	1,035
High Scenario		359	969	1,497

Source: Economics Research Associates

today to 10.2 percent under the low scenario, 11.9 percent under the Moderate Scenario, and 16.3 percent under the High Scenario. For comparison, the 30.2 million square feet total inventory estimated by 2030 under the Moderate Scenario is approximately 2.25 times the existing supply of 13.4 million square feet of owner-occupied and leasable R&D/industrial space in Kearny Mesa, 2.7 times the existing supply in Miramar, and 2.35 times the existing supply in Carlsbad as reported by Burnham Real Estate.<sup>7</sup> The 11.9 percent market share under the Moderate Scenario is approximately 22 percent greater than Kearny Mesa's existing regional market share.

Demand is initially forecasted for Otay Mesa as a whole, including East Otay in the County's jurisdiction since it is within the same market. However, East Otay's assumed share of Otay Mesa demand is marginal during this decade. Assuming that SR-125 is developed and that infrastructure is in place, East Otay's share of local demand should increase between 2010 and 2020. The model assumes a 15 percent share.

Assuming that the proposed third border crossing is developed prior to 2020, and prices rise in Otay Mesa as land is absorbed with development, East Otay's share of local demand should increase even further, particularly since it will be closer to the newer industrial districts in Tijuana at El Florido, and the new Toyota plant to the east towards Tecate.

Based on an assumed distribution of local demand between East Otay Mesa and the Otay Mesa Community Plan Area (CPA), and a slightly rising average floor-area ratio, the estimated cumulative gross new acreage demanded and developed with occupied structures in the City of San Diego's Otay Mesa CPA ranges from 835 to 1,035 acres between 2000 and 2030 for ERA's Low to Moderate Scenarios. Under the assumptions that reflect the City of San Diego's Economic Development Division's position that long-term regional industrial land supply will be much less than reported because of topographical and environmental constraints, and conversions to other non-industrial uses, the estimated demand for industrial land within the City of San Diego's Otay Mesa CPA may reach almost 1,500 acres between 2000 and 2030. This amount is in addition to Otay Mesa's 2000 inventory of occupied and developed acreage.

### **Other Components of Industrial Demand Forecasts**

The market dynamics shaping the demand and supply of industrial land in the San Diego region are driven by three other fundamental factors:

- Changing industrial employment growth patterns and productivity in the various industry sectors
- Regional industrial land supply and land prices

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<sup>7</sup> *Industrial/R&D Update, 2<sup>nd</sup> Qtr, 2005*, Burnham Real Estate

- Overseas trade as a demand generator

This section addresses key questions regarding these factors and their potential impact on industrial land use planning potentials in Otay Mesa.

### **Regional Industrial Employment Growth**

Earlier we presented demand forecasts for all industrial space in both the San Diego region and Otay Mesa. These forecasts are derived from employment growth forecasts in the San Diego region in the major industry sectors that generate for industrial space. However the fundamental demand generators and patterns thereof have been and continue to change. During the past several decades, the economy of the San Diego region has shifted from a manufacturing to a service based economy reflective of national and global trends in developed countries. Between 1990 and 2000, the United States lost approximately 14 percent of its manufacturing employment. California lost approximately 413,400 manufacturing jobs or approximately 19 percent during the same period. The San Diego region witnessed a contraction of approximately 15,300 jobs or around 11.3 percent of its manufacturing jobs. SANDAG forecasts that this decline will continue in the future with the region losing an additional 10,300 manufacturing jobs or 8.3 percent between 2000 and 2030.

While manufacturing will generate some demand for new space to replace obsolete building stock and increases in productivity, growth in the manufacturing sector is not expected to drive most of the regional demand for industrial space in the region. Regional industrial space demand will instead primarily be driven by growth in two industry sectors – the wholesale sector, which uses a relatively high amount of space and land per employee, and the service sector, specifically business services, which uses a relatively low amount of space and land per employee.

In developing a land use planning strategy for Otay Mesa, it will be important to recognize that if manufacturing space is to be a driving force for industrial space demand in Otay Mesa, it would probably come primarily from industry relocations within the region, rather than employment growth, and most of these would probably not be labor intensive manufacturing given the availability of much lower cost labor just across the border. The possibility also always exists for the emergence of a new industry that is unforeseen at this time, though this is more likely in the technology and services sectors than in manufacturing. Industrial growth in Otay Mesa will most likely be the services sector generating demand for industrial space at higher employment densities, and warehouse and distribution uses generating demand at lower than average employment densities. How much acreage is ultimately absorbed depends on the extent to which the later source – warehouse and distribution – continues as a driver of demand in the City of San Diego's portion of Otay Mesa over the next 25 years, versus locating in East Otay, the Inland Empire, Imperial County, and Mexico directly.

### **Regional Industrial Land Supply**

Regional industrial land supply is an important factor in determining the potential for satisfying industrial space demand needs during the next 25 years or so. Moreover, the components of industrial land supply, namely the quantity and size of contiguous developable land parcels, and their accessibility to the desired workforce, will likely dictate to a large extent the location of future industrial development in region.

Based on the results of our analysis, we believe that there is adequate long-term regional supply for industrial land. However, shortages exist within specific sub-areas, parcel sizes, price-points, and status of near-term availability. While there may be major variations throughout the region in demand and supply characteristics, overall, there would appear to be adequate industrial land supply to meet demand for the planning period.

If there is an adequate supply of industrial land in the region, then it is appropriate to question why there has been a rapid rise in industrial land prices during recent years. Rapidly rising prices typically reflect a shortage. This can be explained by a number of factors not linked to a long-term demand/supply comparison of land supply per se. First, there is the near and mid-term shortage, particularly in the desired centralized sub-markets in the region and deliverable land in other sub-markets. Second, there has been a shift in the industries requiring industrial land in the region which now tend to be based on higher value added industries and functions with greater productivity, and hence economic returns per acre. Consequently, many firms can afford to utilize land more intensely and bid up the price of land in the most desirable locations where there is an apparent shortage rather than relocate to more remote parts of the region where land costs are lower. Third, there has been a trend toward conversion of sites to other uses such as office, retail, and residential uses, reflecting market demand for the land. Finally, there has been an increase in speculative land banking of industrial land to secure a land cost basis for future development or as an investment presuming that values will continue to rise for the reasons stated earlier. These factors will continue to drive increases in land prices during the foreseeable future.

### **Overview Overseas Trade as a Demand Generator**

One of the primary sources of demand for industrial space in the western states of the U.S. is overseas trade, particularly that with Asia. This fuels demand primarily for warehouse and distribution space.

The two primary points of entry on the west coast for goods entering the U.S. are the Port of Los Angeles and the Port of Long Beach with regional ports in San Diego, Oakland, Portland, and Seattle/Tacoma. In 2003, Los Angeles and Long Beach handled approximately \$218 billion in cargo in approximately 10.4 million containers. Freight leaving Los Angeles and Long Beach is

distributed via the national road and rail network to destinations all over the U.S. or regional distribution centers. The rail infrastructure that connects directly to major regional distribution centers in U.S. markets is significantly better developed in the Port of Los Angeles and Long Beach than out of the Port of San Diego, but it is approaching capacity issues.

While the Port of Los Angeles and Port of Long Beach have been adding capacity through management measures, including 24 hours/7 days per week operations, and infrastructure improvements, there are concerns among some about future constraints. In 2004-2005, the Port of Los Angeles lost approximately 10 percent of its container traffic (equal to about 2.5 percent of its total traffic) to other ports, particularly Oakland and Tacoma.

The West Coast trade routes, however, are centralizing activities. Cross-docking is a practice in logistics of unloading materials from an incoming truck trailer or rail car and loading these materials in outbound trailers or rail cars. This is done to change the mode of transportation, sort material for different markets, or combine material from different origins. The most efficient practices attempt to use minimal or no warehousing. For these operators, demand is generated for logistical space, but little demand is generated for warehouse space. Many "cross-docking" operations, however, require large staging areas where inbound materials from very divergent areas are sorted, consolidated, and stored until ready to ship. Whether the staging area is a distribution center or warehouse depends on how long materials and goods must be stored to complete the cross-docking process.

Transloading coordinates cargo transferal from importing containers into domestic distribution-ready trailers directly to markets. Upon arrival at the Distribution Center, product information is used to sort merchandise into containers or domestic trailers to meet local market demands. Moving cargo from a Mexican trailer to a U.S. trailer or container would also be considered cross-docking or transloading, depending on if there is an interim step to deliver the goods to market.

The primary West Coast delivery system for the United States is from the Ports of Los Angeles and Long Beach, along the Alameda corridor (for rail) and Interstate 10 (for truck carriers) to the primary regional distribution locations in along the Alameda corridor, such as Carson, and the Inland Empire, such as Ontario with approximately 275 million square feet of industrial space comprised largely of distribution space. The average rent for such space in Ontario is approximately \$0.30 - \$0.35 per square foot per month, which is less than in the San Diego and Otay Mesa market. Because of its direct and centralized access to multiple sources of imports from Asia and Mexico, and manufactured goods in Southern California, its direct access to major national market destinations, and its lower land and occupancy costs, the Ontario/Corona area is the preferred location for many distribution and warehouse operations.



The Alameda Corridor that eventually will connect these Inland Empire distribution centers to the Ports of Los Angeles and Long Beach is currently operating at much less than capacity until the eastern extension is completed, which is anticipated within a decade. Completion of this corridor will add capacity to this already dominant international trade route, which will tend to centralize more distribution and warehousing activity in the Inland Empire.

The border economy in Tijuana/San Diego eventually links to this network by assembling and producing final goods, providing logistical support, and providing short-term distribution and warehousing functions. Several other areas, however, are also trying to position themselves as temporary holding and logistical locations to ultimately feed into this network from locations linked with Mexican manufacturing that have low land costs relative to San Diego, such as Imperial County and Tucson.

While some of the truck traffic leaving Los Angeles does head south to San Diego, most pass through San Diego for assembly plants in Tijuana and Mexico. In the other direction, according to Sourcepoint, approximately 84 percent of the northbound truck traffic from the border area does not stop in San Diego and feeds directly to this trade network or destination markets.

In the future, there should continue to be some demand for warehouse and distribution space in the San Diego region to serve the local regional market, and provide a function or service related to international trade. Also, some operations need to hold inventories for a short time period before sending them north for consolidation and distribution. However, it is less likely that San Diego will increase its market share of West Coast trade by an appreciable extent for several important reasons. First, San Diego is not an established distribution center for other parts of the country. Second, warehouse and distribution space rents are less competitive with established centers such as Ontario and expanding areas of the Inland Empire along the national trade routes where land is more plentiful and less costly.

There appears to be some divergent opinions among industrial developers, logistical companies, and economic developers as to the extent to which warehouse/distribution functions will continue to occur in the long-run within the City of San Diego's portion of Otay Mesa versus other locations in the border zone and Southern California that are less costly. Despite the local region's competitive limitations relative to other areas in Southern California, and uncertainties about changes in future international trade and delivery logistics, infrastructure, technology, and practices, it should be noted that even a small market share of Southern California warehouse/distribution needs, regional and local-serving demand, and relationships with maquiladoras will continue to generate some demand for Otay Mesa industrial land.



### ***Office Space***

Currently, Otay Mesa does not have enough office space to be reported as a separate office sub-market by the industrial brokerage firms or Costar. Its supply is either counted within the industrial space inventory or is combined with other South County inventories and reported as part of a broader South County sub-market. Consequently, there is no existing or historical basis for absorption or market share from which to project future demand. A significant office presence in Otay Mesa would have to be developed from scratch, and would compete with other established office concentrations that can serve the border economy market, including as far north as Mission Valley and downtown San Diego, downtown Chula Vista, and Tijuana, or planned new office concentrations in Chula Vista's Eastern Urban Center or Bayfront.

The suburban office markets tend not to be as large as the major regional nodes that are more centrally located and competitive for firms that serve the entire region, such as Mission Valley, downtown San Diego, and University Town Center. These major regional centers, especially Mission Valley and downtown San Diego, have significant additional capacity for future demand. Office is a land use that is less dependent on land availability because it can add capacity by adding density more easily than can industrial space.

In order to gauge possible demand for office space in the future in Otay Mesa, the relationship of office to industrial space in selected major industrial markets was analyzed, as presented in Table VII-4. As shown, the ratio of office to industrial space ranges from a low of 4.1 percent in San Marcos/Vista to a high of 46.3 percent in Scripps Ranch, and a weighted average of 14.5 percent. The ratio in South San Diego, which includes Otay Mesa is 4.2 percent. The ratio in Kearny Mesa is 26.4 percent, however, Kearny Mesa is very competitive because of its central location in the region.

**Table VII-4:**  
**SELECTED SAN DIEGO COUNTY SUB-MARKETS - OFFICE/INDUSTRIAL RATIOS**

<b>Office Market</b>	<b>2003 Leasible Office Space</b>	<b>Corresponding Industrial Market</b>	<b>2003 Leasible Industrial Space</b>	<b>Percent Office/Industrial</b>
Kearny Mesa	4,781,412	Kearny Mesa	18,130,685	26.4%
Sorrento Mesa	4,176,449	Sorrento Mesa/Sorrento Valley	17,327,728	24.1%
Carlsbad	3,014,087	Carlsbad	12,553,623	24.0%
Rancho Bernardo/Poway	2,582,116	Rancho Bernardo/Poway	18,988,633	13.6%
Torrey Pines	1,010,525	Torrey Pines	4,769,673	21.2%
South San Diego	952,688	South Bay/Otay Mesa	22,636,154	4.2%
San Marcos/Vista	801,730	San Marcos/Vista	19,361,793	4.1%
Mission Gorge	756,180	Mission Gorge	1,633,481	46.3%
Scripps Ranch	751,369	Scripps Ranch	2,408,511	31.2%
Miramar	741,693	Miramar	14,674,212	5.1%
Escondido	584,982	Escondido	6,939,615	8.4%
<b>Total</b>	<b>20,153,231</b>		<b>139,424,108</b>	<b>14.5%</b>

Source: CB Richard Ellis; and Economics Research Associates

### **Projected Office Demand**

Table VII-5 presents projected office demand based on the office-industrial relationships in suburban markets described above. It is assumed that the percentage of office space to industrial space in Otay Mesa will remain low this decade due to the absence of office space in Otay Mesa today that is not located within light industrial and flex buildings, and constrained access to other markets besides the border zone, which limits Otay Mesa's appeal to office tenants other than those that are related to the border economy. A 2 percent office-industrial space relationship is assumed, which is half of the South County ratio. Most of South County's professional office space is located in Chula Vista.

**Table VII-5:  
PROJECTED DEMAND FOR OFFICE SPACE IN OTAY MESA**

	2000	2010	2020	2030
Projected Otay Mesa CPA Cumulative Industrial Space				
Low Scenario	7,200,000	10,200,979	14,026,253	17,652,885
Moderate Scenario	7,200,000	11,201,306	16,301,671	21,741,618
High Scenario	7,200,000	12,201,632	18,577,089	25,225,913
<u>Estimated Otay Mesa CPA Office Demand (square feet)</u>				
Assumed Ratio of Office/Industrial		2%	6%	10%
Low Scenario		204,020	841,575	1,765,288
Moderate Scenario		224,026	978,100	2,174,162
High Scenario		244,033	1,114,625	2,522,591
<u>Cumulative Net New Acreage Demanded At Assumed FAR</u>				
Assumed Average Floor-Area Ratio (FAR)		1.5	2.0	2.5
Low Scenario		3	10	16
Moderate Scenario		3	11	20
High Scenario		4	13	23
<u>Cumulative Gross New Acreage Demanded (net to gross ratio of 80%)</u>				
Low Scenario		4	12	20
Moderate Scenario		4	14	25
High Scenario		5	16	29

Source: Economics Research Associates

After 2010, and the development of SR-125 and SR-905, it is expected that the ratio within Otay Mesa will improve. A 6 percent ratio is assumed, which is above South County's current ratio of 4.2 percent, but well below the estimated countywide average among suburban markets. After 2020, it is assumed that the ratio will rise to 8 percent, twice South County's current ratio but still below the countywide average. A ratio below the countywide average is reasonable for the following reasons:

- The ratios experienced in other industrial markets such as Kearny Mesa and Scripps Ranch will be higher than in Otay Mesa because of their relatively central location within San Diego county that appeals to office tenants that draw from a countywide labor force or serve a countywide client base.
- The ratios experienced in markets such as Sorrento Mesa and Torrey Pines will be higher than Otay Mesa because of the concentration of the region's high-technology industries in these markets that have more functions that utilize office space, and generate high demand for professional services, as well as their central locations for accessing talent.
- The higher than average ratios in Carlsbad are expected because of this market's distance from more central office concentrations, such as Mission Valley, downtown San Diego,

and UTC, that some office tenants consider too far to service their geographic focus, which may range from North County to southern Orange County, as well as limited competition within North County, and Carlsbad's attraction to technology industries.

- Otay Mesa is close enough to existing office concentrations in downtown San Diego, downtown Chula Vista, Mission Valley, and Tijuana to be serviced by firms in these locations that are more central in their respective regions.
- Otay Mesa will face competition from the future Eastern Urban Center in Chula Vista and possibly the Chula Vista Bayfront for higher-end office users looking for a high-amenity location.
- While Otay Mesa's office-industrial relationship is expected to be below average, the amount of potential office space demand is still significant because of the amount of industrial space projected.

As shown in Table VII-5, the projected demand for professional office space within Otay Mesa ranges from 1.8 to 2.5 million square feet by 2030, compared to a limited supply today. At a 1.5 to 2.5 floor-area ratio (FAR), this demand justifies absorption of approximately 20 to 29 gross acres.

### ***Residential Units***

Table VII-6 contrasts SANDAG's forecasts for civilian jobs compared to households countywide and within the South Suburban MSA. In the year 2000, there were 1.30 civilian jobs for every household countywide. This ratio is forecasted to increase to 1.34 by 2030. The addition of military personnel who do not live in group-quarters would increase this ratio slightly if they were added. However, this ratio includes workers who live outside the county, such as Tijuana or Temecula, which would reduce the jobs/household ratio slightly if they were removed. Therefore, the 1.30 to 1.34 jobs/household factor is a reasonable assumption.

As shown in Table VII-6, the ratios in the South Suburban MSA are lower, ranging from 0.91 to 1.20 jobs per household from 2000 to 2030. While the lower ratio may indicate that South County households have fewer jobs on average, it more likely represents a lower average number of jobs in South County relative to its number of households. Consequently, many people who live in South County are employed outside of South County and must commute to jobs located in other areas in the region, which is common for suburban markets.

Within Otay Mesa, an opposite situation exists. The ratio of jobs to households ranges from 17.50 in the year 2000 to a projected 3.36 by 2030 under existing community plan policies. Even by 2030, after most of the housing currently planned for the mesa is built, most Otay Mesa workers will live outside the mesa and will have to commute in.

**Table VII-6:**  
**ESTIMATED JOBS GENERATED HOUSING DEMAND IN SOUTH SUBURBAN MSA**

	2000	2010	2020	2030	Total 2000-2030
<b><u>Jobs/Housing Ratios</u></b>					
<b>San Diego County</b>					
Total Civilian Employment (1)	1,294,583	1,438,429	1,582,790	1,733,937	
Total Households (1)	994,677	1,116,323	1,193,475	1,296,496	
Civilian Employment/Household	1.30	1.29	1.33	1.34	
<b>South Suburban MSA</b>					
Total Civilian Employment (1)	85,704	102,940	131,376	167,053	
Total Households (1)	94,080	121,787	135,377	139,522	
Civilian Employment/Household	0.91	0.85	0.97	1.20	
<b>Otay Mesa CPA</b>					
Total Civilian Employment (1)	8,034	16,608	28,187	41,633	
Total Households (1)	459	6,442	12,304	12,405	
Civilian Employment/Household	17.50	2.58	2.29	3.36	

**South Suburban MSA Estimated Jobs Generated Housing Demand**

<b>South Suburban MSA</b>					
Total Increase in Civilian Employment Per Period (1)		17,236	28,436	35,677	81,349
Countywide Civilian Employment/Housing Ratio		1.29	1.33	1.34	
Job-Generated Housing Demand Per Period		13,376	21,442	26,676	61,494
Total Increase in Occupied Housing Projected Per Period		27,707	13,590	4,145	45,442
Net Surplus <Deficit> in Housing Provided		(14,331)	7,852	22,531	16,052

Source: Economics Research Associates

Notes:

(1) SANDAG

Source: SANDAG; and Economics Research Associates

Table VII-7 presents SANDAG's household forecasts in the county as a whole, the South Suburban MSA, and the Otay Mesa CPA, based on existing land use policies. The South Suburban MSA is projected to capture a significant percentage of countywide growth from 2004 to 2010 and 2010 to 2020, 19.7 and 18.1 percent respectively. After 2020, however, SANDAG forecasts that the South Suburban's share of regional growth will fall dramatically to 4.3 percent of countywide growth. Presumably, SANDAG is forecasting that South County's share of regional growth will subside due to lack of capacity for additional growth once Otay Ranch and Otay Mesa approach build-out under existing land use policies. There is no reason to expect that South County's appeal or propensity to attract new households will decline past 2020, especially



**Table VII-7:  
SANDAG FORECASTS BASED ON EXISTING PLANNING POLICIES**

	2000-2004	CAGR (1)	2004-2010	CAGR	2010-2020	CAGR	2020-2030	CAGR
<b>San Diego County Household Growth</b>								
Total (2)	54,422	1.4%	70,068	1.1%	76,863	0.7%	102,156	0.9%
Single Family Occupied	32,828	1.3%	36,010	0.9%	33,269	0.5%	43,414	0.6%
Multiple Family Occupied	18,249	1.3%	34,058	1.5%	43,594	1.0%	58,742	1.3%
<b>South Suburban MSA Household Growth</b>								
Total (2)	14,010	3.8%	13,770	2.1%	13,882	1.1%	4,413	0.3%
Single Family Occupied	10,093	4.3%	4,683	1.2%	5,800	0.8%	529	0.1%
Multiple Family Occupied	3,917	2.9%	9,087	3.8%	8,082	1.7%	3,884	0.7%
<b>South Suburban MSA As % of SD County</b>								
Total (2)	25.7%		19.7%		18.1%		4.3%	
Single Family Occupied	30.7%		13.0%		17.4%		1.2%	
Multiple Family Occupied	21.5%		26.7%		18.5%		6.6%	
<b>Otay Mesa Community Plan Area</b>								
Total (2)	2,110	53.8%	3,873	16.6%	5,862	6.7%	101	0.1%
Single Family Occupied	1,528	45.9%	428	3.3%	2,605	7.7%	57	0.1%
Multiple Family Occupied	582	117.9%	3,445	37.2%	3,257	6.1%	44	0.1%
<b>Otay Mesa As % of South Suburban MSA</b>								
Total (2)	15.1%		28.1%		42.2%		2.3%	
Single Family Occupied	15.1%		9.1%		44.9%		10.8%	
Multiple Family Occupied	14.9%		37.9%		40.3%		1.1%	

Source: SANDAG; and Economics Research Associates

given that significant job growth is still expected, unless infrastructure constraints become untenable relative to other sub-markets in the region.

SANDAG also forecasts that Otay Mesa's share of the South Suburban MSA's household growth will rise from 28.1 percent between 2004 and 2010 to 42.2 percent between 2010 and 2020, down to 2.3 percent after 2020. These forecasts anticipate that Otay Mesa's market share will rise as Otay Mesa approaches build-out, but that growth after 2020 will be limited due to limited supply as Otay Mesa approaches build-out under current land use policy. Again, there is no reason to expect that Otay Mesa's market appeal will decline so dramatically between decades.

### **Projected Demand**

Table VII-8 presents revised forecasts assuming that capacity for additional housing is expanded in South County and Otay Mesa as planning policies are revised over time, which is possible given the following proposals:

- Chula Vista's General Plan update which is recommending additions to residential build-out capacity, particularly in western Chula Vista and Urban Core, and near the planned university site in Otay Ranch;
- Land owner proposals to increase housing capacity and reduce office capacity within the Eastern Urban Center of Otay Ranch in Chula Vista;
- Proposed redevelopment in San Ysidro and National City which would increase housing capacity;
- Proposed transfer of housing entitlements at the upland portions of the Chula Vista Bayfront;
- Land owner proposals to convert some industrial and commercial land to residential use in Otay Mesa within the City of San Diego.

Much, if not most, of these proposals will increase the capacity for attached and multi-family ownership and rental housing, although some will increase the potential supply of single-family detached housing.

As shown in Table VII-8, assuming that increases in capacity will increase the South Suburban MSA's share of regional market demand, ERA projects an increase in capacity of 19,400 units over SANDAG's current projections by 2030, more than sufficient to accommodate the estimated additional 16,100 units needed to accommodate projected job growth in South County at the average countywide jobs/household ratio. The additional 3,300 units above the amount needed to



**Table VII-8:  
DEMAND FORECASTS ASSUMING REVISED PLANNING POLICIES THAT INCREASE HOUSING CAPACITY IN SOUTH COUNTY**

	2000-2004	CAGR (1)	2004-2010	CAGR	2010-2020	CAGR	2020-2030	CAGR
<b>San Diego County Household Growth</b>								
Total (2)	54,422	1.4%	70,068	1.1%	76,863	0.7%	102,156	0.9%
Single Family Occupied	32,828	1.3%	36,010	0.9%	33,269	0.5%	43,414	0.6%
Multiple Family Occupied	18,249	1.3%	34,058	1.5%	43,594	1.0%	58,742	1.3%
<b>South Suburban MSA Household Growth</b>								
Total (2)	14,010		13,770		3,890		15,476	
Single Family Occupied	10,093		4,683		7,278		6,607	0.3%
Multiple Family Occupied	3,917		9,087		10,494		13,282	0.1%
<b>South Suburban MSA As % of SD County</b>								
Total (2)	25.7%		19.7%		23.1%		19.5%	
Single Family Occupied	30.7%		13.0%		21.9%		15.2%	
Multiple Family Occupied	21.5%		26.7%		24.1%		22.6%	
<b>Otay Mesa Community Plan Area</b>								
Total (2)	2,110	53.8%	3,873	16.6%	6,948	6.7%	6,627	0.1%
Single Family Occupied	1,528	45.9%	428	3.3%	3,275	7.7%	2,643	0.1%
Multiple Family Occupied	582	117.9%	3,445	37.2%	3,673	6.1%	3,984	0.1%
<b>Otay Mesa As % of South Suburban MSA</b>								
Total (2)	15.1%		28.1%		39.1%		33.3%	
Single Family Occupied	15.1%		9.1%		45.0%		40.0%	
Multiple Family Occupied	14.9%		37.9%		35.0%		30.0%	
<b>Estimated Potential Increase in Demand in Otay Mesa Community Plan Area at 5 percent Vacancy</b>								
Total (2)					1,143		6,870	
Single Family Occupied					705		2,722	
Multiple Family Occupied					438		4,148	

Notes:

(1) CAGR = Compounded Annual Growth Rate

(2) Excluding mobile homes

Source: Economics Research Associates



accommodate projected South County job growth would serve households whose wage earners work outside of South County.

Assuming Otay Mesa's share of South County's market demand approximates levels that are more similar to those projected from 2000 to 2020, the estimated demand for housing in Otay Mesa could increase by almost 1,150 units between 2010 and 2020 (approximately 700 single-family and 450 multi-family homes) and 6,850 units between 2020 and 2030 (approximately 2,700 single-family homes and 4,150 multi-family homes). This is approximately 8,000 additional units over and above those already planned for build-out in the currently adopted community plan, if land use policies were amended to allow for it and infrastructure was enhanced to service more households.

This estimate is not a recommendation; rather, it demonstrates that demand exists for additions to Otay Mesa's potential long-term housing supply. Additions to the housing supply in South County would reduce the jobs/household ratio currently anticipated in South County by 2030 further below countywide averages (implying more commuting outside South County) unless the number of jobs increases beyond what is currently projected as well. Within Otay Mesa, however, the ratio would fall to 2.08 jobs/household, still well above the countywide average of 1.34 in 2030. The potential for reduced commuting into Otay Mesa would be enhanced with the additional housing.

### ***Retail Space***

As noted in the previous section, the primary sources of market support for retail space within Otay Mesa are community residents, workers within Otay Mesa, Mexican nationals in the Tijuana metro area, and miscellaneous travelers and regional residents who live outside Otay Mesa. Tables VII-9 through VII-11 below present the retail projections from these markets.

Table VII-9 presents estimated market support from the Otay Mesa resident market, based on SANDAG's projected growth in households from 2000 to 2030 in the community plan area, and applying average expenditure per household factors. Household expenditures are divided by shopping center types based on estimated countywide averages. Household expenditures in Super-regional and Regional shopping centers were not counted since the consumer base on Otay Mesa is not large enough to support a regional center, and the regional market will be adequately served by existing centers and the planned regional shopping center in eastern Chula Vista. Based on potential expenditures in neighborhood and community centers, and assuming a high capture rate, it is estimated that the projected households in Otay Mesa can support approximately

**Table VII-9**  
**OTAY MESA RETAIL SALES - RESIDENTS PER EXISTING COMMUNITY PLAN - 2030**

Countywide Expenditure/HH	\$	19,937						
Countywide Avg. HH Income	\$	69,805						
Assumed Market Area Exp./HH Income Relative to								
Countywide Average		100.0%						
Market Area Exp./HH Income	\$	19,937						
Households (2000-2030)		11,946						

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		Super Regional		Regional		Community		Neighborhood		Other		Total
		Center		Center		Center		Center				
Share of Total Sales		10.8%		12.1%		21.0%		17.5%		38.6%		100.0%
Distribution/Household	\$	2,155	\$	2,415	\$	4,179	\$	3,484	\$	7,704	\$	19,937
Capture Rate/Store Type		0.0%		0.0%		80.0%		95.0%		50.0%		--
Captured Sales/Household	\$	-	\$	-	\$	3,343	\$	3,309	\$	3,852	\$	10,505
Total Captured Sales (\$000s)	\$	-	\$	-	\$	39,937	\$	39,535	\$	46,016	\$	125,488
Sales/s.f. (by center type)	\$	258	\$	254	\$	269	\$	323	\$	300		--
Supportable GLA (s.f.)		-		-		148,233		122,384		153,387		424,004
Supportable Acreage @ FAR	0.3	-	-	-	11.34	9.37	11.74					32.45

Source: Economics Research Associates.

32.5 acres of retail land in addition to the existing developed acreage. The amount of supportable space and land would be higher if the community's capacity for more households is increased.

Table VII-10 presents estimated market support from people working in Otay Mesa, Mexican shoppers, and overnight guests staying at a business or limited-service hotel. Of these, Mexican shoppers potentially are the largest source market source. It is estimated that workers may support approximately 5.7 acres by 2030. Together, these other markets may support an estimated 43.2 additional acres of retail land.

Table VII-11 presents an estimate of total supportable retail land by 2030, including existing developed land. It is estimated that the potential market sources, plus a factor for unaccounted traveler and regional resident markets, may support over 1 million square feet of retail space, or approximately 87 acres of additional retail land. Almost half of this support may come from the Mexican market, which is a real and growing market source, but also a risky one given potential currency fluctuations, national security measures that may impede access, and the potential for additional competition elsewhere in South County and in the Tijuana metro area.

**Table VII-10**  
**ESTIMATED OTAY MESA RETAIL SUPPORT FROM OTHER SOURCES - 2000-2030**

**Retail Support Attributed to Otay Mesa Employees**

<u>Land Use at Buildout</u>	<u>Acres</u>	<u>Est. Employee/acre</u>	<u>Employees</u>
Office Commercial	20.0	348.5	6,970
Retail Commercial	85.0	20.5	1,746
Industrial	1,035.0	13.6	14,076
Public/Quasi-Public Uses	200.0	6.0	1,200
Total Employment			23,992
Average Annual Workdays	235		
Average Daily Employee Spending	\$4.00		
Total Annual Expenditure		\$22.6	Million
Estimated Supportable Sales/s.f.	\$300		
Estimated Supportable GLA (s.f.)	75,175	s.f.	
Estimated Supportable Acreage @ FAR	0.30	5.75	Acres

**Retail Support Attributed to Cross-Border (Mexican) Traffic - Excluding Workers and Tourists**

Estimated countywide cross border retail expenditure :			
Estimated Gross Retail Exp. (2003)	\$	1,850.2	Million
Estimated Capture in South County	60%	\$1,110.1	Million
Estimated Otay Mesa Capture (2003)	10%	\$111.0	Million
Estimated Mexican Exp. Growth (2003-2030)		1.0%	Annually
Estimated Mexican Retail Exp.in Otay Mesa (2030)		\$145.2	Million
Estimated Supportable Sales/s.f.		\$300	
Estimated Supportable GLA (s.f.)		484,094	s.f.
Estimated Supportable Acreage @ FAR	0.30	37.04	Acres

**Retail Support Attributed to Overnight Visitors (Hotel Rooms)**

Visitor Commercial Acres		10.0	acres
Estimated Existing Rooms/developed acre		22	rooms/acre
Estimated Total Rooms		221	rooms
Annual room-nights @ occupancy of	70%	56,375	room nights
Avg. retail expenditure/room night in Otay Mesa	\$	25.00	/room-night
Estimated taxable retail sales attributed to hotel rooms	\$	1.41	Million
Estimated Supportable Sales/s.f.		\$300	
Estimated Supportable GLA (s.f.)		4,698	s.f.
Estimated Supportable Acreage @ FAR	0.30	0.36	Acres

Source: Economics Research Associates.



**Table VII-11**  
**ESTIMATED SUPPORTABLE INCREMENTAL RETAIL SPACE IN OTAY MESA - 2000-2030**

	Area (s.f.)	Acres
<b>Resident Market</b>		
Primary Market Support	424,004	32.4
<b>Resident Market Subtotal</b>	<b>424,004</b>	<b>32.4</b>
<b>Other Retail Sources</b>		
Area Employees	75,175	5.8
'Cross-Border' Shoppers	484,094	37.0
Other overnight visitors	4,698	0.4
<b>Other Retail Sources Subtotal</b>	<b>563,966</b>	<b>43.2</b>
<b>Factor for Miscellaneous (1)</b>	<b>15%</b>	<b>11.3</b>
<b>TOTAL</b>	<b>987,970</b>	<b>86.9</b>

Notes:

(1) Southbound travelers, visitors, other South County residents, unaccounted consumers, etc.

Source: Economics Research Associates

The retail potential estimates presented above are based on the SANDAG household forecasts for the current Community Plan. If we apply the potential household growth forecasts developed earlier assuming revised land use policies that increase housing capacity, the incremental household forecast for Otay Mesa at 2030 increases by another 8,000 households. This increase would generate demand for another 22 acres of retail land, for a total incremental increase of almost 109 retail acres from 2000 to 2030. This should therefore be reflected in any land use plan alternative that is based on increasing housing capacity within the Otay Mesa Community Plan.

### Summary

Overall, it is estimated that Otay Mesa can support the following increases in the amount of commercial and industrial land by 2030:

**Table VII-12: Estimated Demand for Additional Developed Gross Acres Within the Otay Mesa CPA 2000 to 2030**

	<b>Low</b>	<b>Moderate</b>	<b>High</b>
Industrial	835	1,035	1,497
Office	20	25	29
Retail	87-109	87-109	87-109

Source: Economics Research Associates

In addition, the it is estimated that the market can support approximately 8,000 more residential units than allowed in the currently adopted plan and reflected in SANDAG's 2030 forecasts.

The estimated land area absorbed assumes efficient land utilization and was estimated separately for each use. The aggregate amount of land absorbed could be marginally less with mixed-use development, and use of shared resources, such as parking, landscaping, and circulation infrastructure. The combined uses could include a combination of office, retail and services, lodging, and some multi-family residential development. Achievable rents, land prices, parking configuration, and regulatory policies will be the primary determinants of the potential for mixed-use development.